

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P294440

Luminaire Tested: **RL4069S1EWHDM-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P294440
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A1809075A001)
Test Lab: EVERFINE
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RL4069S1EWHDM-3500K
Description: 4 IN HALO RL DIRECT MOUNT (600 LUMEN) - 3500K
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: 644.87 (1 lamp)
Luminaire Lumens: 655.8 lumens
Efficiency: 101.7%
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

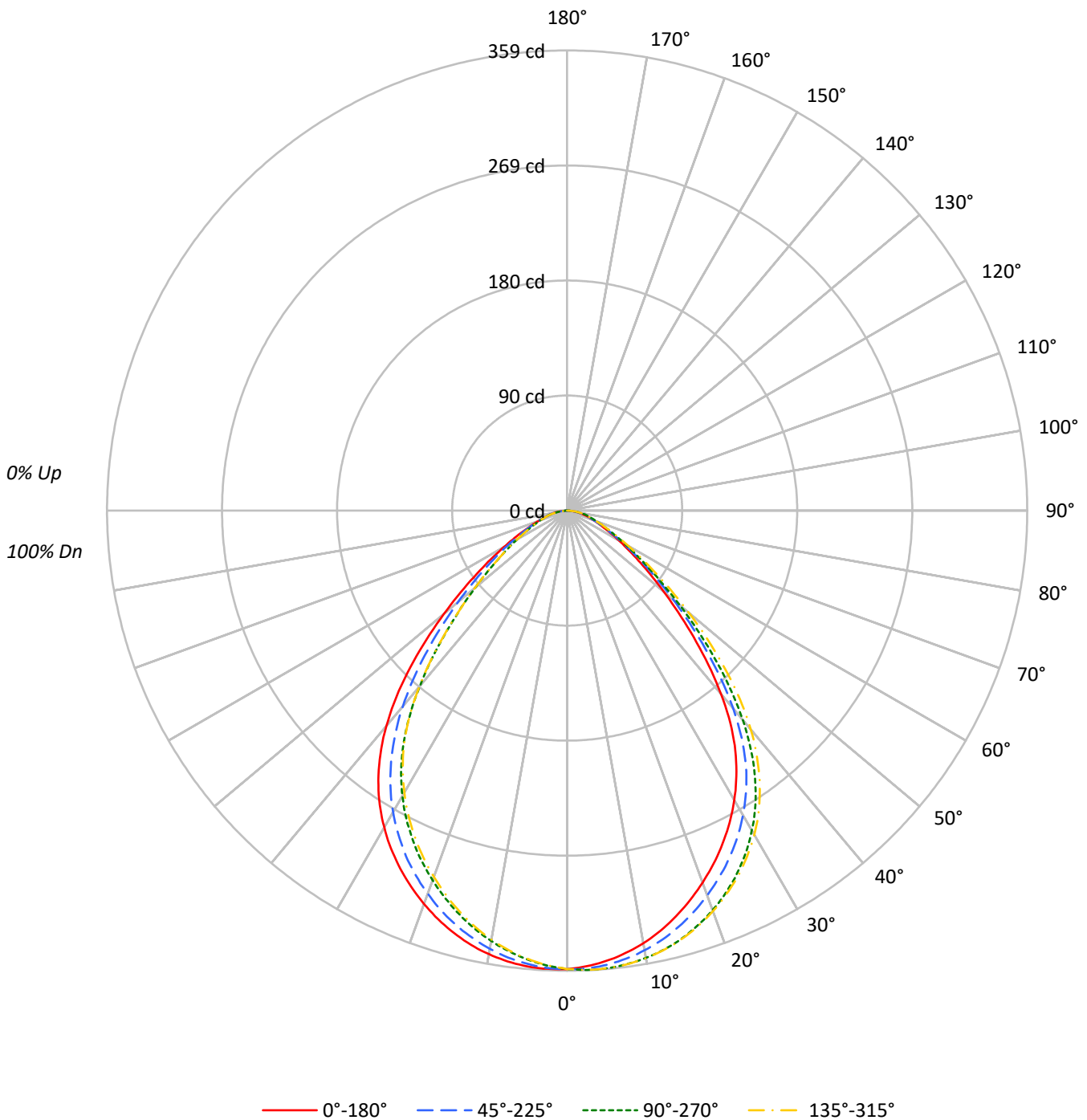
Input Watts (W): 8.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	121	121	121	121	118	118	118	118	113	113	113	108	108	108	104	104	104	102	102	102	102	102	102	102		
1	113	109	106	103	110	107	104	101	103	100	98	99	97	95	95	94	92	90	90	90	90	90	90	90		
2	105	98	92	88	102	96	91	87	93	88	85	90	86	83	87	84	81	79	79	79	79	79	79	79		
3	97	88	81	76	95	87	80	75	84	78	74	81	77	73	79	75	72	70	70	70	70	70	70	70		
4	90	80	72	67	88	79	72	66	76	70	65	74	69	64	72	67	64	62	62	62	62	62	62	62		
5	84	73	65	59	82	72	64	59	70	63	58	68	62	58	66	61	57	55	55	55	55	55	55	55		
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	49	49	49	49	49	49	49		
7	73	61	53	47	71	60	53	47	59	52	47	57	51	47	56	51	46	45	45	45	45	45	45	45		
8	68	56	48	43	67	55	48	43	54	47	43	53	47	42	52	46	42	41	41	41	41	41	41	41		
9	64	52	44	39	63	51	44	39	50	44	39	49	43	39	48	43	39	37	37	37	37	37	37	37		
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34	34	34	34	34	34	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	43945	43945	43945	43945
5°	43484	44199	44014	43373
10°	42751	44198	43837	42539
15°	41679	43956	43396	41450
20°	40385	43366	42686	40123
25°	38890	42428	41778	38552
30°	36983	40884	40487	36472
35°	34315	38349	38529	33400
40°	29942	34160	35186	28691
45°	24237	28250	30057	23055
50°	18826	21884	24044	17928
55°	14565	16557	18442	13901
60°	11450	12850	14030	11032
65°	9186	10378	10843	9128
70°	7831	8800	8585	8010
75°	7025	8164	7642	7547
80°	6084	7853	7287	6438
85°	3665	6625	5779	3383



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	33.7	5.1	5.2
10°-20°	94.4	14.4	14.6
20°-30°	137.0	20.9	21.2
30°-40°	149.7	22.8	23.2
40°-50°	117.7	18.0	18.3
50°-60°	67.7	10.3	10.5
60°-70°	34.4	5.3	5.3
70°-80°	16.9	2.6	2.6
80°-90°	4.2	0.6	0.7
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	265.1	40.4	41.1
0°-40°	414.7	63.2	64.3
0°-60°	600.2	91.5	93.1
0°-90°	655.8	100.0	101.7
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	655.8	100.0	101.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	358	358	358	358	358	
5°	353	358	357	352	353	33
15°	328	346	341	326	328	92
25°	287	313	308	284	287	132
35°	229	256	257	223	229	142
45°	140	163	173	133	140	108
55°	68	77	86	65	68	62
65°	32	36	37	31	32	32
75°	15	17	16	16	15	16
85°	3	5	4	2	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7	357.7
0.5°	357.4	357.5	357.9	358.9	357.9	357.9	357.8	357.7	357.8	357.7	357.9
1°	357.1	357.3	357.9	359.0	358.1	358.1	358.1	357.9	357.9	357.7	357.7
1.5°	356.7	357.1	357.9	359.0	358.4	358.4	358.4	358.1	357.9	357.7	357.6
2°	356.3	356.9	357.7	359.0	358.6	358.6	358.5	358.2	357.9	357.6	357.4
2.5°	355.8	356.5	357.5	358.9	358.7	358.7	358.7	358.2	357.8	357.5	357.1
3°	355.3	356.2	357.3	358.8	358.7	358.8	358.7	358.3	357.8	357.2	356.8
3.5°	354.7	355.7	356.9	358.6	358.7	358.8	358.7	358.3	357.6	356.9	356.4
4°	354.0	355.3	356.6	358.4	358.6	358.8	358.6	358.2	357.5	356.6	356.0
4.5°	353.3	354.7	356.1	358.1	358.6	358.8	358.6	358.0	357.2	356.3	355.5
5°	352.6	354.2	355.7	357.8	358.4	358.7	358.4	357.8	356.9	355.9	355.0
5.5°	351.9	353.5	355.2	357.4	358.2	358.5	358.2	357.5	356.6	355.4	354.4
6°	351.1	352.8	354.6	357.0	358.0	358.3	358.0	357.2	356.2	354.9	353.8
6.5°	350.2	352.1	354.0	356.5	357.7	358.0	357.7	356.9	355.8	354.3	353.2
7°	349.2	351.3	353.3	356.0	357.3	357.7	357.4	356.5	355.3	353.7	352.5
7.5°	348.2	350.5	352.6	355.4	356.9	357.4	357.0	356.0	354.8	353.0	351.7
8°	347.2	349.6	351.8	354.8	356.5	356.9	356.6	355.5	354.2	352.4	350.9
8.5°	346.1	348.6	351.0	354.1	356.0	356.5	356.1	354.9	353.5	351.6	350.0
9°	345.0	347.6	350.2	353.4	355.5	355.9	355.6	354.3	352.9	350.8	349.2
9.5°	343.9	346.6	349.2	352.6	354.9	355.4	355.1	353.7	352.2	349.9	348.2
10°	342.7	345.5	348.3	351.8	354.3	354.8	354.5	353.0	351.4	349.0	347.2
10.5°	341.4	344.3	347.3	351.0	353.7	354.1	353.8	352.2	350.6	348.1	346.2
11°	340.1	343.1	346.2	350.1	353.0	353.4	353.1	351.5	349.8	347.1	345.1
11.5°	338.7	341.9	345.1	349.1	352.2	352.7	352.4	350.7	348.9	346.0	343.9
12°	337.3	340.6	344.0	348.1	351.4	352.0	351.7	349.8	347.9	345.0	342.7
12.5°	335.8	339.3	342.8	347.0	350.6	351.2	350.9	348.9	346.9	343.9	341.5
13°	334.3	337.9	341.6	345.9	349.7	350.3	350.0	347.9	345.9	342.8	340.3
13.5°	332.7	336.6	340.3	344.8	348.8	349.4	349.1	346.9	344.8	341.6	339.0
14°	331.1	335.1	338.9	343.6	347.8	348.4	348.2	345.9	343.6	340.3	337.7
14.5°	329.4	333.5	337.5	342.3	346.7	347.4	347.1	344.8	342.5	339.0	336.2
15°	327.7	332.0	336.1	341.0	345.6	346.3	346.0	343.7	341.2	337.7	334.8
15.5°	326.0	330.4	334.6	339.7	344.4	345.2	344.9	342.5	339.9	336.2	333.3
16°	324.3	328.7	333.1	338.3	343.2	344.1	343.7	341.3	338.6	334.8	331.8
16.5°	322.5	327.0	331.6	336.9	341.9	342.9	342.4	340.0	337.2	333.3	330.3
17°	320.6	325.3	330.0	335.4	340.6	341.6	341.2	338.7	335.9	331.7	328.7
17.5°	318.7	323.6	328.3	333.9	339.3	340.2	339.9	337.3	334.4	330.2	327.0
18°	316.8	321.8	326.6	332.3	337.9	338.8	338.5	335.8	332.9	328.5	325.4
18.5°	314.8	319.9	324.9	330.7	336.4	337.4	337.1	334.3	331.3	326.9	323.6
19°	312.9	318.0	323.1	329.1	334.9	335.9	335.6	332.8	329.8	325.2	321.8
19.5°	310.9	316.2	321.3	327.3	333.3	334.4	334.1	331.3	328.1	323.5	319.9
20°	308.9	314.2	319.5	325.6	331.7	332.8	332.5	329.7	326.5	321.7	318.1
20.5°	306.8	312.3	317.6	323.8	330.1	331.2	331.0	328.1	324.8	319.9	316.2
21°	304.7	310.4	315.7	322.0	328.4	329.5	329.4	326.4	323.2	318.1	314.3
21.5°	302.6	308.4	313.8	320.1	326.7	327.7	327.7	324.7	321.4	316.2	312.4
22°	300.4	306.3	311.8	318.3	324.9	326.0	326.0	323.1	319.6	314.4	310.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	298.3	304.3	309.8	316.4	323.0	324.2	324.2	321.4	317.8	312.5	308.3
23°	296.1	302.2	307.8	314.4	321.1	322.3	322.4	319.6	315.9	310.5	306.2
23.5°	293.9	300.0	305.7	312.3	319.2	320.5	320.6	317.7	314.0	308.5	304.0
24°	291.6	297.8	303.6	310.3	317.2	318.4	318.8	315.9	312.1	306.4	301.9
24.5°	289.2	295.6	301.4	308.1	315.2	316.4	316.9	313.9	310.2	304.3	299.7
25°	286.9	293.3	299.2	305.9	313.0	314.3	314.9	311.9	308.2	302.1	297.4
25.5°	284.4	290.9	296.9	303.6	310.8	312.2	312.9	309.9	306.1	300.0	295.0
26°	282.0	288.5	294.6	301.3	308.5	310.0	310.8	307.8	304.0	297.7	292.6
26.5°	279.5	286.1	292.3	298.9	306.2	307.7	308.6	305.7	301.8	295.5	290.1
27°	277.0	283.6	289.9	296.5	303.8	305.4	306.4	303.6	299.6	293.2	287.6
27.5°	274.4	281.1	287.5	294.1	301.4	303.0	304.1	301.4	297.4	290.8	285.1
28°	271.8	278.6	285.0	291.6	298.9	300.5	301.8	299.2	295.1	288.4	282.6
28.5°	269.1	276.0	282.4	289.0	296.4	297.9	299.5	296.9	292.8	285.9	280.0
29°	266.4	273.4	279.8	286.3	293.7	295.3	297.0	294.6	290.4	283.4	277.2
29.5°	263.5	270.7	277.0	283.6	291.0	292.6	294.5	292.1	287.9	280.9	274.4
30°	260.7	267.9	274.3	280.8	288.2	289.9	292.0	289.7	285.4	278.2	271.6
30.5°	257.9	265.1	271.6	277.9	285.5	287.1	289.3	287.2	282.9	275.6	268.8
31°	255.0	262.3	268.7	275.0	282.6	284.1	286.7	284.6	280.3	272.9	265.9
31.5°	251.9	259.4	265.8	272.0	279.6	281.1	283.9	281.9	277.6	270.0	262.8
32°	248.8	256.4	262.8	268.9	276.5	278.0	281.1	279.2	274.9	267.1	259.8
32.5°	245.7	253.3	259.8	265.7	273.2	274.8	278.1	276.3	272.1	264.2	256.5
33°	242.5	250.2	256.6	262.4	269.9	271.5	275.0	273.4	269.2	261.1	253.3
33.5°	239.1	246.9	253.3	259.0	266.5	268.2	271.9	270.4	266.2	258.1	249.9
34°	235.8	243.6	250.1	255.5	262.9	264.8	268.7	267.4	263.2	255.0	246.5
34.5°	232.4	240.2	246.7	251.8	259.4	261.2	265.4	264.2	260.0	251.7	243.1
35°	228.8	236.6	243.1	248.1	255.7	257.5	262.0	261.0	256.9	248.4	239.5
35.5°	225.1	233.0	239.4	244.4	251.9	253.6	258.6	257.6	253.6	245.0	235.9
36°	221.2	229.3	235.6	240.5	248.0	249.7	255.0	254.2	250.2	241.5	232.2
36.5°	217.3	225.4	231.7	236.5	244.0	245.7	251.3	250.7	246.6	237.9	228.3
37°	213.2	221.4	227.7	232.4	239.9	241.6	247.4	247.1	243.0	234.2	224.4
37.5°	209.2	217.3	223.7	228.1	235.7	237.4	243.6	243.4	239.3	230.5	220.5
38°	204.9	213.1	219.4	223.8	231.4	233.1	239.7	239.6	235.5	226.6	216.4
38.5°	200.5	208.9	215.1	219.3	227.0	228.7	235.7	235.7	231.7	222.5	212.3
39°	196.0	204.5	210.7	214.8	222.5	224.1	231.6	231.6	227.8	218.4	208.3
39.5°	191.4	199.9	206.1	210.2	217.8	219.4	227.3	227.5	223.7	214.3	203.9
40°	186.7	195.4	201.5	205.4	213.0	214.6	222.9	223.4	219.4	210.0	199.5
40.5°	182.1	190.6	196.8	200.6	208.3	209.8	218.4	219.0	215.1	205.6	195.1
41°	177.3	185.8	192.0	195.7	203.3	205.0	213.8	214.6	210.7	201.2	190.6
41.5°	172.6	181.0	187.2	190.7	198.4	200.0	209.1	210.1	206.3	196.8	186.1
42°	167.8	176.2	182.3	185.8	193.5	194.9	204.3	205.5	201.8	192.2	181.6
42.5°	163.0	171.4	177.3	180.8	188.4	189.8	199.5	200.7	197.2	187.5	177.0
43°	158.2	166.5	172.4	175.8	183.3	184.6	194.5	195.8	192.5	182.8	172.4
43.5°	153.4	161.6	167.4	170.8	178.1	179.3	189.5	191.0	187.7	178.0	167.8
44°	148.7	156.8	162.4	165.7	172.9	174.1	184.3	186.1	182.8	173.3	163.1
44.5°	144.1	151.9	157.5	160.5	167.7	168.9	179.2	181.2	178.0	168.7	158.5



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CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	139.5	147.1	152.7	155.6	162.6	163.8	174.0	176.2	173.0	163.9	153.9
45.5°	135.0	142.5	147.9	150.7	157.5	158.5	168.9	171.1	168.2	159.1	149.4
46°	130.6	138.0	143.2	145.8	152.5	153.2	163.8	166.1	163.4	154.3	144.9
46.5°	126.2	133.4	138.5	141.0	147.5	148.1	158.6	161.0	158.5	149.5	140.5
47°	121.9	128.9	133.7	136.2	142.4	143.0	153.4	156.1	153.7	144.8	136.0
47.5°	117.6	124.5	129.2	131.5	137.5	138.0	148.4	151.2	148.9	140.2	131.6
48°	113.7	120.2	124.8	126.8	132.8	133.1	143.3	146.2	144.1	135.6	127.5
48.5°	109.7	116.1	120.5	122.4	128.0	128.4	138.4	141.5	139.4	131.3	123.3
49°	105.8	112.2	116.3	118.0	123.4	123.6	133.5	136.8	134.8	126.8	119.1
49.5°	102.2	108.1	112.2	113.7	118.9	119.1	128.7	132.0	130.2	122.4	115.1
50°	98.5	104.4	108.2	109.6	114.5	114.6	124.0	127.2	125.8	118.1	111.3
50.5°	95.0	100.7	104.2	105.5	110.1	110.2	119.3	122.6	121.3	114.0	107.3
51°	91.6	97.0	100.4	101.6	105.9	105.9	114.7	118.2	116.9	109.9	103.6
51.5°	88.3	93.4	96.7	97.7	101.9	101.9	110.4	113.9	112.7	106.0	99.9
52°	85.2	90.0	93.1	94.0	97.9	98.0	106.0	109.6	108.5	102.2	96.3
52.5°	82.1	86.7	89.7	90.4	94.2	94.1	101.9	105.4	104.6	98.4	92.8
53°	79.0	83.5	86.3	87.0	90.6	90.4	98.0	101.4	100.8	94.7	89.5
53.5°	76.1	80.4	83.1	83.6	87.1	86.9	94.0	97.5	97.0	91.2	86.3
54°	73.3	77.5	79.9	80.4	83.7	83.5	90.3	93.5	93.2	87.8	83.2
54.5°	70.6	74.6	76.8	77.3	80.4	80.1	86.7	89.8	89.6	84.4	80.0
55°	68.0	71.7	73.9	74.3	77.3	77.0	83.2	86.3	86.1	81.2	77.0
55.5°	65.5	69.0	71.2	71.4	74.3	74.0	79.7	82.8	82.8	78.1	74.1
56°	63.0	66.3	68.3	68.6	71.4	71.2	76.5	79.5	79.5	75.1	71.4
56.5°	60.8	63.9	65.7	65.9	68.9	68.3	73.6	76.3	76.4	72.3	68.9
57°	58.5	61.5	63.1	63.4	66.1	65.6	70.6	73.1	73.4	69.6	66.2
57.5°	56.2	59.2	60.7	61.0	63.6	63.0	67.6	70.1	70.5	66.6	63.7
58°	54.1	57.0	58.4	58.6	61.1	60.6	64.9	67.3	67.6	64.1	61.2
58.5°	52.1	54.9	56.1	56.3	58.7	58.3	62.2	64.5	64.8	61.5	58.8
59°	50.3	52.7	54.0	54.0	56.6	56.0	59.7	61.8	62.1	59.1	56.6
59.5°	48.4	50.6	51.9	51.8	54.4	53.9	57.3	59.2	59.6	56.8	54.4
60°	46.6	48.6	49.8	49.9	52.3	51.9	55.0	56.8	57.1	54.5	52.2
60.5°	44.8	46.8	47.8	47.9	50.3	49.8	52.9	54.3	54.8	52.2	50.2
61°	43.1	45.1	45.9	46.1	48.4	47.9	50.6	52.1	52.5	50.2	48.2
61.5°	41.3	43.3	44.1	44.4	46.6	46.0	48.5	49.8	50.2	48.1	46.4
62°	39.8	41.5	42.4	42.7	44.8	44.3	46.5	47.7	48.1	46.1	44.5
62.5°	38.3	40.0	40.7	41.0	43.1	42.7	44.6	45.7	46.2	44.2	42.9
63°	37.0	38.4	39.2	39.3	41.4	41.1	42.8	43.8	44.2	42.5	41.1
63.5°	35.5	37.0	37.6	37.8	40.0	39.6	41.1	41.8	42.4	40.8	39.5
64°	34.2	35.6	36.0	36.4	38.5	37.9	39.4	40.0	40.6	39.1	38.0
64.5°	32.9	34.1	34.5	34.9	37.1	36.4	37.8	38.3	38.9	37.5	36.5
65°	31.6	32.8	33.2	33.7	35.7	35.0	36.3	36.7	37.3	35.9	35.1
65.5°	30.6	31.5	31.8	32.3	34.3	33.8	34.8	35.1	35.6	34.3	33.8
66°	29.4	30.4	30.6	31.1	33.1	32.5	33.4	33.7	34.0	33.0	32.4
66.5°	28.5	29.3	29.6	29.8	31.8	31.3	32.1	32.3	32.5	31.6	31.2
67°	27.2	28.1	28.5	28.7	30.5	30.1	30.8	30.9	31.2	30.5	30.2



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	26.3	26.9	27.1	27.6	29.6	29.0	29.6	29.8	29.8	29.0	28.8
68°	25.3	26.0	26.1	26.6	28.5	27.9	28.6	28.5	28.6	27.9	27.8
68.5°	24.3	25.1	25.1	25.4	27.3	26.8	27.2	27.1	27.2	26.7	26.7
69°	23.6	23.9	24.0	24.6	26.4	25.8	26.3	26.1	26.2	25.5	25.6
69.5°	22.6	23.3	23.2	23.5	25.3	25.0	25.1	25.2	25.1	24.7	24.8
70°	21.8	22.2	22.1	22.7	24.5	23.9	24.1	23.9	23.9	23.6	23.7
70.5°	20.9	21.5	21.5	21.8	23.5	23.1	23.3	23.0	23.0	22.7	22.9
71°	20.0	20.6	20.5	21.0	22.8	22.2	22.3	22.0	21.9	21.8	22.0
71.5°	19.4	19.8	19.9	20.2	21.9	21.5	21.6	21.2	21.1	20.9	21.4
72°	18.6	19.1	19.0	19.7	21.4	20.6	20.5	20.2	20.1	20.0	20.4
72.5°	18.1	18.2	18.2	18.8	20.5	19.9	19.8	19.6	19.5	19.3	19.8
73°	17.2	17.6	17.5	18.1	19.8	19.2	19.0	18.9	18.6	18.4	19.0
73.5°	16.6	16.9	16.9	17.3	19.1	18.4	18.2	18.1	18.0	17.8	18.2
74°	16.2	16.3	16.4	16.8	18.3	17.8	17.4	17.3	17.2	17.1	17.5
74.5°	15.7	15.7	15.7	16.3	18.0	17.2	16.8	16.6	16.4	16.5	17.0
75°	14.8	15.4	15.1	15.6	17.2	16.5	16.3	16.2	16.1	15.8	16.3
75.5°	14.2	14.6	14.7	15.0	16.4	15.9	15.5	15.5	15.5	15.3	15.7
76°	13.8	14.1	14.3	14.6	16.1	15.4	14.8	14.8	14.7	14.7	15.4
76.5°	12.9	13.5	13.5	14.2	15.4	14.8	14.5	14.3	14.2	14.4	14.6
77°	12.4	12.7	12.8	13.3	14.7	14.3	13.9	13.9	13.7	13.6	14.3
77.5°	11.8	12.3	12.4	12.7	14.2	13.6	13.1	13.2	12.9	12.9	13.4
78°	11.2	11.8	11.7	12.2	13.6	12.9	12.7	12.7	12.5	12.3	12.7
78.5°	10.7	11.1	11.2	11.4	12.8	12.4	12.2	12.3	12.1	11.8	12.2
79°	9.8	10.4	10.5	11.1	12.3	11.7	11.7	11.5	11.3	11.2	11.4
79.5°	9.4	9.7	9.7	10.3	11.7	11.2	11.1	11.2	11.0	10.6	11.0
80°	8.6	9.3	9.4	9.4	11.1	10.7	10.5	10.6	10.3	9.8	10.1
80.5°	7.8	8.6	8.6	9.1	10.4	9.9	9.9	9.7	9.5	9.4	9.3
81°	7.5	7.7	7.8	8.3	9.5	9.4	9.3	9.4	9.2	8.8	8.7
81.5°	6.7	7.4	7.5	7.6	9.2	8.9	8.7	8.8	8.5	7.9	8.2
82°	6.0	6.6	6.7	7.0	8.4	8.0	8.3	7.9	7.6	7.6	7.6
82.5°	5.6	5.9	6.0	6.3	7.6	7.6	7.5	7.6	7.3	6.7	6.9
83°	4.9	5.6	5.7	5.7	7.1	6.8	6.9	6.8	6.5	6.0	6.0
83.5°	4.2	4.9	4.9	5.1	6.3	6.2	6.2	6.1	5.8	5.8	5.7
84°	4.0	4.1	4.2	4.7	5.8	5.8	5.8	5.7	5.6	4.9	4.9
84.5°	3.3	3.9	4.0	4.0	5.1	5.1	5.1	5.0	4.8	4.3	4.1
85°	2.6	3.0	3.2	3.3	4.7	4.6	4.7	4.3	4.1	4.0	3.8
85.5°	2.3	2.4	2.5	2.9	4.0	4.1	4.0	4.0	3.9	3.2	3.0
86°	1.8	2.2	2.3	2.3	3.5	3.3	3.3	3.2	3.1	2.5	2.4
86.5°	1.6	1.5	1.7	2.1	2.9	2.9	2.9	2.6	2.4	2.3	2.2
87°	0.6	0.8	1.4	1.3	2.3	2.3	2.3	2.3	2.2	1.8	1.4
87.5°	0.5	0.5	0.6	0.7	2.1	2.1	2.0	1.7	1.5	1.6	0.9
88°	0.0	0.0	0.5	0.5	1.4	1.4	1.4	1.7	0.9	0.6	0.5
88.5°	0.0	0.0	0.0	0.0	0.7	0.8	0.7	0.6	0.5	0.5	0.0
89°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.3	0.0	0.3
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	357.7	357.7	357.7	357.7	357.7	357.7
0.5°	358.6	357.2	357.2	357.1	357.2	357.4
1°	358.3	356.8	356.7	356.7	356.8	357.1
1.5°	358.0	356.4	356.2	356.2	356.3	356.7
2°	357.7	355.9	355.7	355.6	355.9	356.3
2.5°	357.3	355.3	355.1	355.0	355.3	355.8
3°	356.9	354.7	354.5	354.4	354.7	355.3
3.5°	356.4	354.0	353.8	353.7	354.0	354.7
4°	355.8	353.3	353.1	352.9	353.4	354.0
4.5°	355.3	352.5	352.3	352.1	352.6	353.3
5°	354.6	351.7	351.4	351.2	351.8	352.6
5.5°	353.9	350.8	350.6	350.3	350.9	351.9
6°	353.2	349.9	349.6	349.3	350.0	351.1
6.5°	352.4	348.9	348.6	348.3	349.1	350.2
7°	351.5	347.9	347.6	347.2	348.1	349.2
7.5°	350.7	346.8	346.4	346.1	346.9	348.2
8°	349.8	345.7	345.3	345.0	345.8	347.2
8.5°	348.8	344.6	344.1	343.8	344.6	346.1
9°	347.8	343.5	342.8	342.6	343.4	345.0
9.5°	346.7	342.3	341.5	341.2	342.2	343.9
10°	345.6	341.0	340.2	339.9	340.9	342.7
10.5°	344.5	339.7	338.9	338.5	339.5	341.4
11°	343.3	338.3	337.5	337.1	338.2	340.1
11.5°	342.1	336.9	336.1	335.6	336.8	338.7
12°	340.8	335.5	334.6	334.0	335.3	337.3
12.5°	339.5	334.0	333.1	332.5	333.8	335.8
13°	338.2	332.5	331.5	330.8	332.2	334.3
13.5°	336.7	330.9	329.9	329.2	330.7	332.7
14°	335.3	329.3	328.2	327.4	329.0	331.1
14.5°	333.7	327.7	326.5	325.7	327.3	329.4
15°	332.1	325.9	324.8	323.9	325.5	327.7
15.5°	330.6	324.2	323.0	322.1	323.7	326.0
16°	329.0	322.4	321.1	320.2	321.9	324.3
16.5°	327.3	320.6	319.2	318.3	320.0	322.5
17°	325.5	318.7	317.4	316.4	318.2	320.6
17.5°	323.8	316.9	315.5	314.4	316.3	318.7
18°	322.0	314.9	313.5	312.4	314.3	316.8
18.5°	320.1	312.9	311.5	310.3	312.3	314.8
19°	318.3	311.0	309.5	308.3	310.2	312.9
19.5°	316.4	309.0	307.4	306.2	308.2	310.9
20°	314.5	306.9	305.3	304.1	306.1	308.9
20.5°	312.5	304.8	303.2	302.0	304.0	306.8
21°	310.4	302.7	301.2	299.8	301.9	304.7
21.5°	308.3	300.5	299.0	297.6	299.8	302.6
22°	306.2	298.4	296.7	295.3	297.6	300.4



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	304.1	296.2	294.4	293.1	295.3	298.3
23°	302.0	294.0	292.1	290.8	293.0	296.1
23.5°	299.8	291.7	289.8	288.5	290.7	293.9
24°	297.5	289.3	287.5	286.1	288.4	291.6
24.5°	295.2	286.9	285.1	283.6	286.0	289.2
25°	292.8	284.4	282.6	281.2	283.5	286.9
25.5°	290.3	281.9	280.2	278.6	281.1	284.4
26°	287.9	279.3	277.6	276.0	278.5	282.0
26.5°	285.4	276.7	275.0	273.5	276.0	279.5
27°	282.8	274.2	272.4	270.9	273.3	277.0
27.5°	280.2	271.4	269.7	268.2	270.8	274.4
28°	277.5	268.7	267.1	265.5	268.1	271.8
28.5°	274.8	265.9	264.4	262.7	265.4	269.1
29°	272.0	263.0	261.5	259.8	262.6	266.4
29.5°	269.1	260.0	258.7	257.0	259.8	263.5
30°	266.2	257.1	255.9	254.1	256.9	260.7
30.5°	263.1	254.0	252.9	251.1	254.0	257.9
31°	260.1	250.8	249.9	248.1	251.0	255.0
31.5°	257.0	247.7	246.8	245.0	248.0	251.9
32°	253.7	244.5	243.7	242.0	245.0	248.8
32.5°	250.4	241.1	240.5	238.8	241.8	245.7
33°	247.0	237.5	237.2	235.5	238.6	242.5
33.5°	243.6	234.0	233.7	232.2	235.3	239.1
34°	240.1	230.4	230.3	228.8	231.8	235.8
34.5°	236.4	226.6	226.7	225.3	228.4	232.4
35°	232.6	222.7	223.1	221.7	224.9	228.8
35.5°	228.8	218.7	219.3	217.9	221.1	225.1
36°	224.8	214.6	215.5	214.0	217.4	221.2
36.5°	220.7	210.5	211.5	210.1	213.5	217.3
37°	216.7	206.2	207.4	206.1	209.5	213.2
37.5°	212.5	201.8	203.2	201.9	205.3	209.2
38°	208.3	197.4	199.0	197.6	201.0	204.9
38.5°	203.9	192.9	194.7	193.2	196.7	200.5
39°	199.4	188.3	190.3	188.7	192.3	196.0
39.5°	195.1	183.6	185.7	184.1	187.8	191.4
40°	190.6	178.9	181.1	179.4	183.2	186.7
40.5°	186.0	174.3	176.3	174.8	178.4	182.1
41°	181.5	169.7	171.5	170.3	173.7	177.3
41.5°	176.9	165.0	166.8	165.5	169.0	172.6
42°	172.2	160.3	162.1	160.9	164.3	167.8
42.5°	167.5	155.5	157.4	156.2	159.7	163.0
43°	162.8	150.8	152.7	151.5	155.1	158.2
43.5°	158.2	146.2	148.0	146.8	150.4	153.4
44°	153.6	141.6	143.3	142.3	145.7	148.7
44.5°	149.0	137.1	138.8	137.7	141.1	144.1



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	144.6	132.7	134.2	133.3	136.5	139.5
45.5°	140.1	128.4	129.9	128.9	132.1	135.0
46°	135.5	124.2	125.5	124.6	127.7	130.6
46.5°	131.2	119.9	121.4	120.3	123.5	126.2
47°	126.9	115.8	117.2	116.1	119.2	121.9
47.5°	122.8	112.0	113.3	112.2	115.1	117.6
48°	118.6	108.0	109.3	108.3	111.1	113.7
48.5°	114.7	104.4	105.4	104.6	107.3	109.7
49°	110.8	100.8	101.8	101.0	103.6	105.8
49.5°	107.0	97.2	98.2	97.5	100.0	102.2
50°	103.3	93.8	94.8	94.0	96.5	98.5
50.5°	99.7	90.5	91.3	90.6	93.0	95.0
51°	96.2	87.2	88.1	87.4	89.7	91.6
51.5°	92.7	84.1	84.9	84.2	86.4	88.3
52°	89.5	81.1	81.7	81.2	83.2	85.2
52.5°	86.3	78.2	78.8	78.3	80.2	82.1
53°	83.1	75.3	76.0	75.4	77.4	79.0
53.5°	80.1	72.7	73.2	72.7	74.6	76.1
54°	77.1	70.0	70.7	70.0	71.8	73.3
54.5°	74.3	67.4	68.0	67.6	69.2	70.6
55°	71.6	64.9	65.5	65.1	66.6	68.0
55.5°	69.1	62.6	63.0	62.7	64.1	65.5
56°	66.4	60.3	60.8	60.5	61.8	63.0
56.5°	64.0	58.2	58.6	58.3	59.5	60.8
57°	61.6	56.0	56.6	56.1	57.5	58.5
57.5°	59.3	54.0	54.6	54.0	55.2	56.2
58°	57.2	52.0	52.5	52.0	53.3	54.1
58.5°	55.1	50.2	50.5	50.2	51.4	52.1
59°	53.0	48.4	48.7	48.5	49.4	50.3
59.5°	51.1	46.6	46.9	46.7	47.5	48.4
60°	49.1	44.9	45.3	44.9	45.8	46.6
60.5°	47.4	43.3	43.7	43.3	44.3	44.8
61°	45.6	41.7	42.2	41.7	42.7	43.1
61.5°	43.9	40.3	40.7	40.3	41.0	41.3
62°	42.3	38.9	39.2	38.9	39.4	39.8
62.5°	40.8	37.6	37.7	37.5	38.0	38.3
63°	39.4	36.1	36.5	36.0	36.6	37.0
63.5°	37.9	34.8	35.2	34.8	35.4	35.5
64°	36.3	33.7	34.0	33.6	34.0	34.2
64.5°	35.0	32.5	32.8	32.4	32.8	32.9
65°	33.7	31.4	31.7	31.4	31.6	31.6
65.5°	32.5	30.5	30.5	30.3	30.5	30.6
66°	31.4	29.2	29.6	29.2	29.5	29.4
66.5°	30.5	28.5	28.6	28.3	28.5	28.5
67°	29.1	27.3	27.5	27.2	27.3	27.2



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	28.3	26.5	26.7	26.4	26.4	26.3
68°	27.1	25.4	25.7	25.3	25.4	25.3
68.5°	26.4	24.7	25.1	24.6	24.5	24.3
69°	25.4	23.7	24.0	23.6	23.6	23.6
69.5°	24.5	23.1	23.4	23.0	22.9	22.6
70°	23.6	22.3	22.5	22.0	22.0	21.8
70.5°	22.9	21.8	21.7	21.5	21.4	20.9
71°	21.9	20.8	20.9	20.6	20.5	20.0
71.5°	21.2	20.1	20.2	20.0	19.8	19.4
72°	20.4	19.5	19.8	19.2	19.1	18.6
72.5°	19.9	18.9	19.0	18.4	18.3	18.1
73°	19.1	18.2	18.2	18.1	17.9	17.2
73.5°	18.4	17.5	17.6	17.3	17.1	16.6
74°	18.1	17.1	17.0	16.6	16.4	16.2
74.5°	17.2	16.5	16.3	16.1	16.0	15.7
75°	16.6	15.9	15.8	15.6	15.4	14.8
75.5°	16.3	15.4	15.5	14.8	14.7	14.2
76°	15.6	14.7	14.6	14.2	14.1	13.8
76.5°	14.8	14.0	14.1	13.7	13.5	12.9
77°	14.2	13.1	13.2	12.9	12.7	12.4
77.5°	13.7	12.5	12.6	12.3	12.2	11.8
78°	12.9	11.9	11.9	11.5	11.4	11.2
78.5°	12.3	11.2	11.1	11.1	11.0	10.7
79°	11.5	10.5	10.5	10.1	10.1	9.8
79.5°	11.0	9.6	9.7	9.4	9.3	9.4
80°	10.1	9.1	9.3	8.9	8.7	8.6
80.5°	9.4	8.4	8.4	8.0	8.2	7.8
81°	8.9	7.7	7.6	7.6	7.6	7.5
81.5°	8.0	7.2	7.0	6.7	6.9	6.7
82°	7.6	6.1	6.2	6.0	6.0	6.0
82.5°	6.7	5.8	5.7	5.3	5.7	5.6
83°	5.9	5.0	4.9	4.8	4.8	4.9
83.5°	5.4	4.1	4.1	4.1	4.1	4.2
84°	4.8	3.8	3.8	3.4	3.8	4.0
84.5°	4.1	3.1	3.0	2.8	3.0	3.3
85°	3.4	2.4	2.3	2.3	2.4	2.6
85.5°	2.9	2.1	2.1	1.7	2.2	2.3
86°	2.3	1.4	1.4	1.4	1.5	1.8
86.5°	1.7	0.9	0.8	0.7	1.0	1.6
87°	1.3	0.6	0.5	0.5	0.5	0.6
87.5°	0.7	0.0	0.0	0.0	0.3	0.5
88°	0.5	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0
89°	0.3	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P294440

CATALOG NUMBER: RL4069S1EWHDM-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)