

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: NEO-RAY

Report Number: P210491

Luminaire Tested: **S921DIP-W435-XX4XX-UDD-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P210491
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35510)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S921DIP-W435-XX4XX-UDD-W
Description: NEO-RAY CONVERGE SUSPENDED LED WaveStream LUMINAIRE
WHITE CURVILINEAR HOUSING
Light Source: (238) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5426.5 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.14 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 0.68' x L: 4' x H: 0.31')
CIE Type: General Diffuse

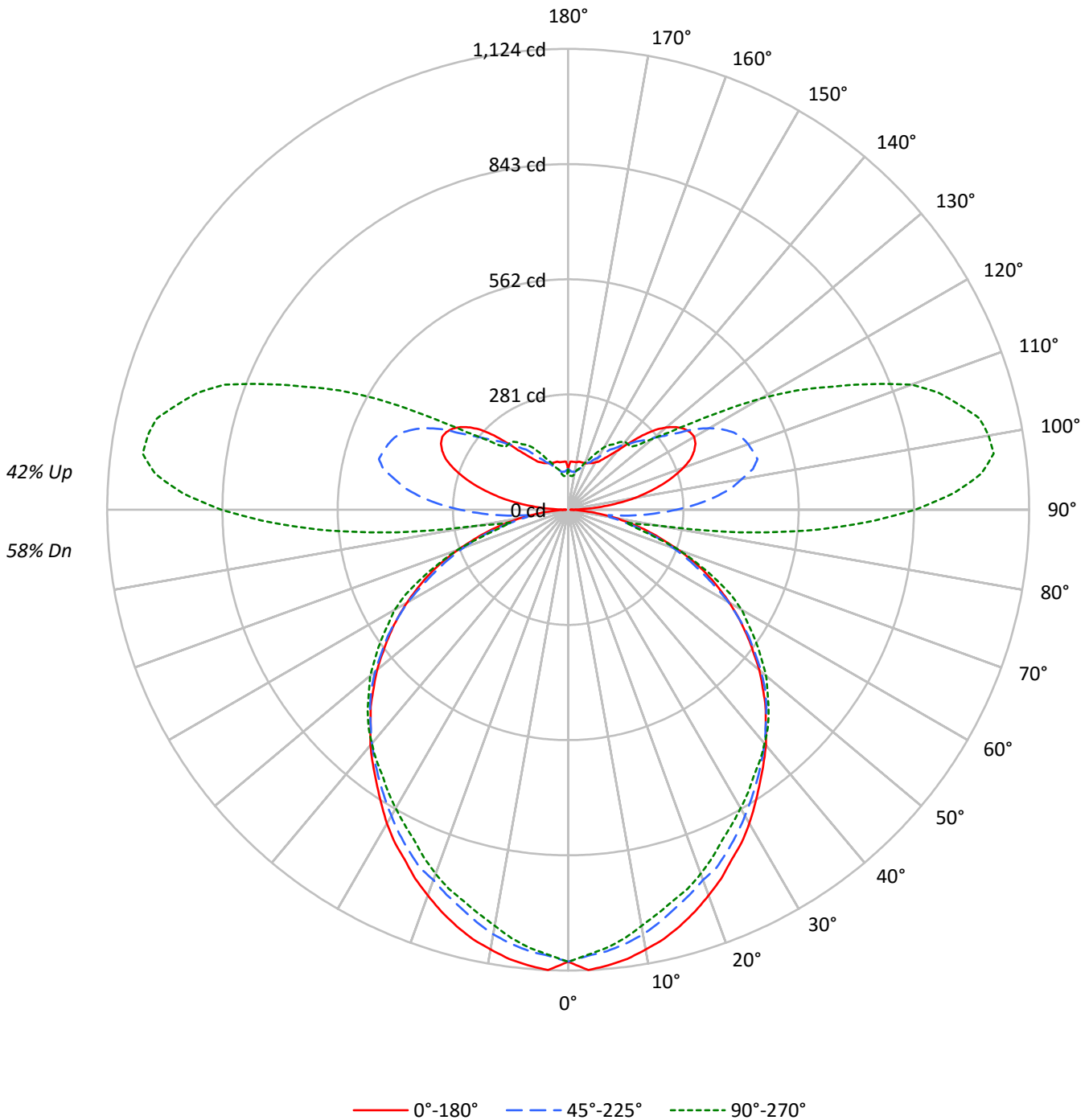
Input Watts (W): 50.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58								
1	98	93	89	85	91	87	83	79	75	72	69	64	62	60	54	52	51	46								
2	89	81	74	69	83	76	70	65	65	61	57	56	52	49	47	45	42	38								
3	81	71	63	57	75	66	59	54	57	52	47	49	45	42	42	39	36	32								
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31	27								
5	68	56	47	41	63	52	45	39	46	39	35	39	34	31	33	30	27	24								
6	63	50	42	35	58	47	39	34	41	35	30	35	31	27	30	26	23	21								
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	28	24	21	18								
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	25	21	19	16								
9	50	37	30	24	47	35	28	23	31	25	21	27	22	19	23	20	17	15								
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	22	18	15	13								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4379	4379	4379
5°	4419	4173	4115
10°	4334	3978	3847
15°	4237	3759	3620
20°	4116	3573	3427
25°	3986	3424	3214
30°	3880	3249	3054
35°	3746	3084	2905
40°	3653	2935	2795
45°	3550	2789	2669
50°	3444	2619	2524
55°	3314	2417	2342
60°	3180	2169	2170
65°	3014	1860	1866
70°	2737	1555	1488
75°	2386	1176	971
80°	1870	740	1432
85°	1035	1377	4296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	1.9
10°-20°	286.6	5.3
20°-30°	423.7	7.8
30°-40°	505.2	9.3
40°-50°	529.7	9.8
50°-60°	484.6	8.9
60°-70°	369.6	6.8
70°-80°	202.0	3.7
80°-90°	264.6	4.9
90°-100°	498.4	9.2
100°-110°	569.5	10.5
110°-120°	477.5	8.8
120°-130°	314.0	5.8
130°-140°	183.8	3.4
140°-150°	111.6	2.1
150°-160°	62.2	1.1
160°-170°	30.9	0.6
170°-180°	9.4	0.2
0°-30°	813.4	15.0
0°-40°	1318.7	24.3
0°-60°	2333.0	43.0
0°-90°	3169.2	58.4
90°-120°	1545.4	28.5
90°-150°	2154.8	39.7
90°-180°	2257.0	41.6
0°-180°	5426.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1116	1108	1081	1078	1073	106
15°	1052	1041	1006	993	988	296
25°	942	940	918	902	889	435
35°	814	822	804	796	790	511
45°	681	689	683	691	691	524
55°	531	539	537	550	558	475
65°	374	371	358	387	392	368
75°	200	190	184	176	171	211
85°	43	56	160	432	585	51
90°	5	96	264	651	846	9
95°	80	166	360	788	1012	83
105°	238	280	478	812	988	248
115°	339	347	446	617	710	332
125°	344	344	326	350	368	306
135°	256	240	235	222	216	198
145°	152	158	179	195	195	98
155°	126	123	128	142	147	58
165°	120	112	101	104	104	34
175°	118	112	93	85	83	11
180°	99	99	99	99	99	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1123.8	1115.8	1089.1	1089.1	1086.5
5°	1115.8	1107.8	1081.1	1078.4	1073.1
7.5°	1105.1	1094.5	1067.8	1062.4	1054.4
10°	1089.1	1081.1	1051.7	1041.1	1030.4
12.5°	1073.1	1062.4	1030.4	1019.7	1009.0
15°	1051.7	1041.1	1006.4	993.0	987.7
17.5°	1027.7	1017.0	985.0	979.7	969.0
20°	1001.0	990.4	961.0	955.7	945.0
22.5°	974.3	966.3	945.0	929.0	918.3
25°	942.3	939.6	918.3	902.3	888.9
27.5°	915.6	910.3	891.6	875.6	864.9
30°	883.6	880.9	862.2	848.9	840.9
32.5°	848.9	851.5	832.9	824.8	816.8
35°	814.2	822.2	803.5	795.5	790.1
37.5°	782.1	792.8	774.1	771.5	768.8
40°	750.1	758.1	744.8	744.8	744.8
42.5°	712.7	723.4	712.7	720.7	720.7
45°	680.7	688.7	683.4	691.4	691.4
47.5°	643.3	651.3	651.3	659.3	659.3
50°	608.6	616.6	614.0	624.6	630.0
52.5°	568.6	576.6	573.9	589.9	592.6
55°	531.2	539.2	536.6	549.9	557.9
57.5°	493.8	501.8	493.8	509.9	520.5
60°	453.8	461.8	451.1	467.1	488.5
62.5°	413.8	416.4	403.1	429.8	445.8
65°	373.7	371.0	357.7	387.1	392.4
67.5°	331.0	325.7	315.0	336.3	339.0
70°	285.6	280.3	272.3	283.0	288.3
72.5°	240.2	234.9	229.6	232.2	221.6
75°	200.2	189.5	184.2	176.2	170.8
77.5°	157.5	149.5	138.8	136.1	144.1
80°	117.5	117.5	101.4	141.5	224.2
82.5°	77.4	82.8	98.8	307.0	421.8
85°	42.7	56.1	160.2	432.4	584.6
87.5°	18.7	66.7	210.9	541.9	723.4
90°	5.3	96.1	264.3	651.3	846.2
92.5°	37.4	133.5	315.0	731.4	942.3
95°	80.1	165.5	360.4	787.5	1011.7
97.5°	122.8	205.5	400.4	824.8	1046.4
100°	165.5	232.2	429.8	832.9	1041.1
102.5°	200.2	258.9	461.8	827.5	1027.7
105°	237.6	280.3	477.8	811.5	987.7
107.5°	269.6	299.0	472.5	787.5	947.6
110°	299.0	309.7	467.1	731.4	891.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	323.0	328.3	459.1	672.7	800.8
115°	339.0	347.0	445.8	616.6	710.1
117.5°	349.7	357.7	424.4	555.2	630.0
120°	355.0	360.4	397.7	496.5	541.9
122.5°	352.4	357.7	365.7	424.4	448.5
125°	344.4	344.4	325.7	349.7	368.4
127.5°	331.0	328.3	296.3	296.3	309.7
130°	312.3	301.6	272.3	256.3	269.6
132.5°	288.3	269.6	250.9	226.9	234.9
135°	256.3	240.2	234.9	221.6	216.2
137.5°	221.6	213.6	216.2	221.6	216.2
140°	189.5	192.2	205.5	216.2	216.2
142.5°	168.2	176.2	189.5	202.9	208.2
145°	152.2	157.5	178.9	194.9	194.9
147.5°	138.8	144.1	162.8	181.5	186.9
150°	133.5	138.8	146.8	168.2	176.2
152.5°	128.1	128.1	138.8	157.5	160.2
155°	125.5	122.8	128.1	141.5	146.8
157.5°	122.8	120.1	122.8	128.1	130.8
160°	120.1	114.8	114.8	120.1	122.8
162.5°	120.1	112.1	109.4	114.8	112.1
165°	120.1	112.1	101.4	104.1	104.1
167.5°	120.1	109.4	98.8	96.1	98.8
170°	117.5	109.4	93.4	93.4	88.1
172.5°	117.5	109.4	93.4	88.1	82.8
175°	117.5	112.1	93.4	85.4	82.8
177.5°	117.5	112.1	96.1	88.1	82.8
180°	98.8	98.8	98.8	98.8	98.8

(END OF REPORT)