

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: METALUX

Report Number: P231489

Luminaire Tested: **SSLED-LD5-9-W-UNV-L840-CD1-U-CLR22-CLCDL22**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P231489  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-6)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SSLED-LD5-9-W-UNV-L840-CD1-U-CLR22-CLCDL22  
Description: STEELER CLEAR REFRACTOR LENS AND CONICAL DROP  
Light Source: (240) 4000 CCT, 80 CRI LEDS  
Ballast/Driver: (1) ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8659.0 lumens  
Efficiency: N/A  
Efficacy: 135.1 lumens/watt  
Spacing Criteria (0/90/45): 1.63 / 1.67 / 1.65  
Luminous Opening: Vertical Cylinder (Dia: 1.67' x H: 1.17')  
CIE Type: Direct

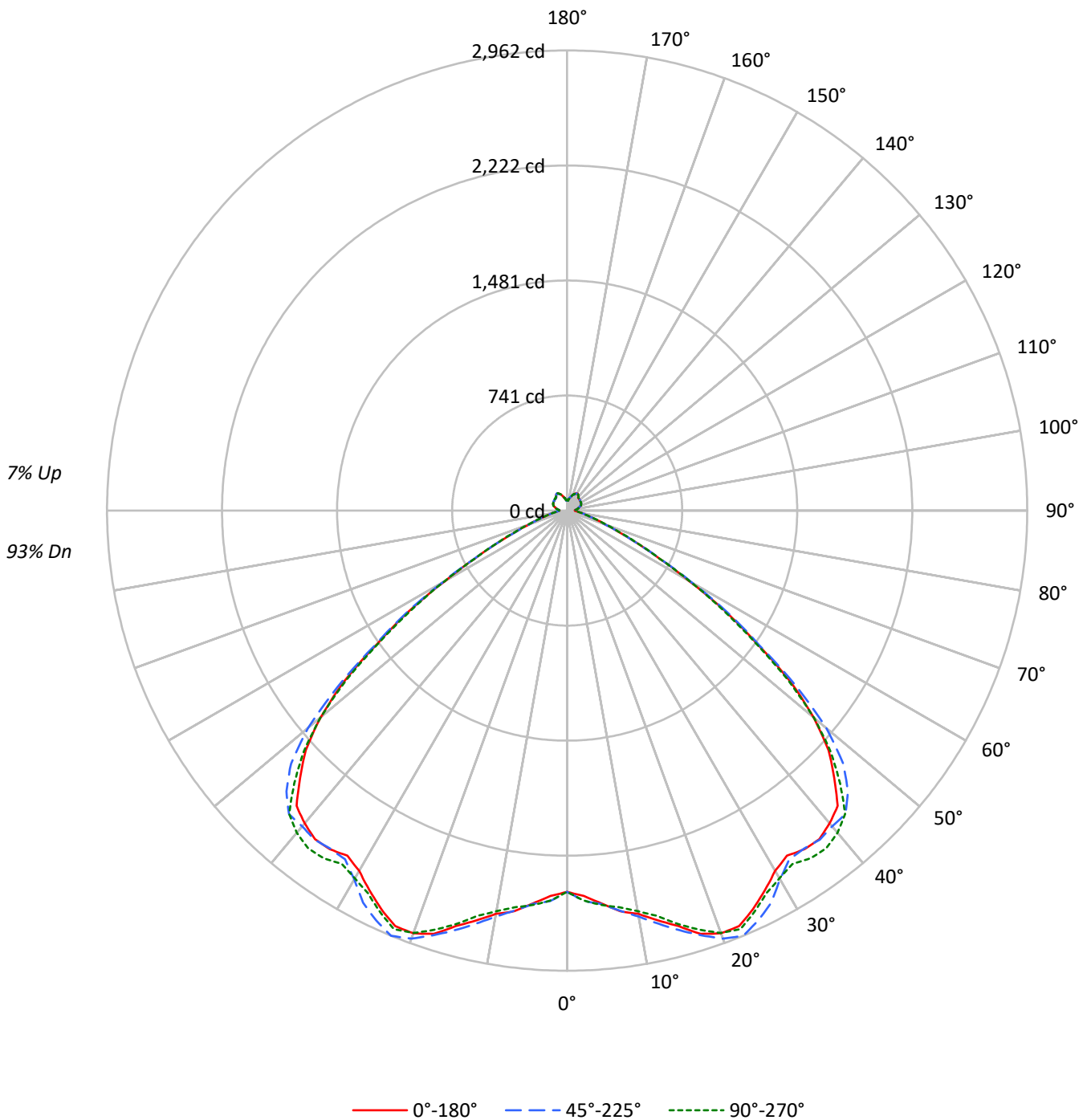
Input Watts (W): 64.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93								
1	109	105	101	98	105	102	98	95	96	94	91	91	89	87	87	85	84	81								
2	100	93	87	82	97	90	85	80	86	81	77	82	78	75	78	75	72	70								
3	92	82	75	69	89	80	73	68	76	71	66	73	68	64	69	65	62	60								
4	84	73	65	59	81	71	64	58	68	62	57	65	60	55	62	58	54	52								
5	78	66	57	51	75	64	56	50	61	54	49	59	53	48	56	51	47	45								
6	72	59	51	44	69	58	50	44	55	48	43	53	47	42	51	46	41	39								
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35								
8	62	49	40	35	60	48	40	34	46	39	34	44	38	33	42	37	33	31								
9	57	44	36	31	56	44	36	31	42	35	30	40	34	30	39	33	29	28								
10	54	41	33	28	52	40	33	28	39	32	27	37	31	27	36	30	27	25								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12106	12106	12106
5°	11659	11679	11710
10°	11411	11488	11335
15°	11419	11531	11358
20°	11479	11623	11470
25°	10885	11194	10963
30°	10072	10306	10282
35°	9870	9853	10131
40°	9686	9775	9976
45°	8971	9428	9167
50°	7711	8105	7715
55°	5628	5707	5559
60°	3523	3613	3553
65°	1985	1983	2023
70°	1103	1083	1153
75°	659	665	676
80°	462	458	460
85°	317	319	317



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.5	2.8
10°-20°	789.1	9.1
20°-30°	1313.5	15.2
30°-40°	1689.7	19.5
40°-50°	1909.1	22.0
50°-60°	1355.8	15.7
60°-70°	523.0	6.0
70°-80°	172.0	2.0
80°-90°	73.2	0.8
90°-100°	62.7	0.7
100°-110°	85.3	1.0
110°-120°	98.0	1.1
120°-130°	93.3	1.1
130°-140°	83.6	1.0
140°-150°	76.2	0.9
150°-160°	55.1	0.6
160°-170°	27.0	0.3
170°-180°	6.8	0.1
0°-30°	2348.2	27.1
0°-40°	4037.9	46.6
0°-60°	7302.8	84.3
0°-90°	8071.0	93.2
90°-120°	245.9	2.8
90°-150°	499.1	5.8
90°-180°	588.0	6.8
0°-180°	8659.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2454	2454	2454	2454	2454	
5°	2538	2536	2542	2530	2549	246
15°	2769	2782	2797	2773	2755	790
25°	2831	2816	2911	2837	2851	1301
35°	2661	2663	2657	2707	2732	1667
45°	2432	2469	2555	2508	2485	1861
55°	1487	1525	1508	1506	1469	1337
65°	495	487	494	495	505	519
75°	150	153	151	152	153	172
85°	63	63	63	63	63	59
90°	49	50	50	50	50	28
95°	54	54	55	55	56	48
105°	82	81	78	80	79	86
115°	99	99	99	100	100	98
125°	104	104	105	104	105	93
135°	108	107	108	109	110	83
145°	123	123	123	124	125	76
155°	120	119	115	118	118	56
165°	91	93	92	92	90	27
175°	66	65	65	65	65	7
180°	71	71	71	71	71	



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CATALOG NUMBER: SSLED-LD5-9-W-UNV-L840-CD1-U-CLR22-CLCDL22

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2453.6	2453.6	2453.6	2453.6	2453.6
2.5°	2483.2	2511.9	2515.7	2494.7	2513.3
5°	2537.7	2536.3	2542.0	2530.5	2548.7
7.5°	2601.2	2592.6	2596.9	2582.6	2575.0
10°	2635.6	2633.7	2653.3	2632.8	2618.0
12.5°	2701.6	2697.8	2724.5	2693.9	2672.0
15°	2769.4	2781.9	2796.7	2773.3	2754.6
17.5°	2856.9	2829.2	2865.9	2825.8	2828.2
20°	2895.6	2856.9	2931.9	2862.6	2893.2
22.5°	2895.1	2873.1	2962.0	2855.4	2915.6
25°	2830.6	2816.3	2910.9	2837.3	2850.7
27.5°	2755.6	2782.8	2844.4	2807.7	2777.1
30°	2677.7	2762.7	2739.8	2801.9	2733.6
32.5°	2633.7	2715.4	2661.9	2760.8	2697.3
35°	2661.4	2662.9	2656.7	2707.3	2731.7
37.5°	2666.2	2647.1	2671.0	2683.9	2739.8
40°	2628.5	2639.0	2652.8	2684.4	2707.3
42.5°	2577.8	2589.8	2650.9	2628.5	2648.5
45°	2431.6	2469.4	2555.4	2507.6	2484.7
47.5°	2283.0	2372.4	2411.1	2399.1	2302.6
50°	2071.8	2146.4	2177.4	2170.7	2072.8
52.5°	1817.6	1829.6	1859.7	1835.3	1791.3
55°	1487.0	1524.7	1508.0	1505.6	1468.8
57.5°	1213.2	1235.2	1230.9	1224.6	1182.6
60°	908.3	925.5	931.3	929.4	916.0
62.5°	672.8	676.1	678.5	688.5	670.4
65°	495.0	486.9	494.5	495.0	504.6
67.5°	354.5	351.7	356.0	358.4	370.3
70°	263.8	260.4	259.0	266.6	275.7
72.5°	202.1	199.2	200.7	204.0	205.5
75°	149.6	152.9	151.0	151.9	153.4
77.5°	119.0	118.5	117.5	118.0	119.5
80°	98.4	97.5	97.5	96.5	98.0
82.5°	78.4	79.3	78.8	79.3	79.3
85°	62.6	63.1	63.1	63.1	62.6
87.5°	52.6	53.0	52.6	53.5	53.0
90°	49.2	49.7	49.7	50.2	49.7
92.5°	50.2	51.1	51.1	52.1	51.6
95°	54.5	54.5	54.9	55.4	55.9
97.5°	62.1	62.6	63.5	64.0	64.0
100°	69.3	70.2	70.7	71.2	72.2
102.5°	73.6	73.6	73.6	74.5	74.5
105°	81.7	80.8	78.4	79.8	79.3
107.5°	87.4	86.5	86.0	87.4	88.4
110°	93.7	92.7	92.2	93.7	94.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	96.5	96.0	96.0	97.0	98.0
115°	99.4	98.9	98.9	99.9	100.3
117.5°	100.8	100.8	101.8	101.8	102.3
120°	101.3	101.8	102.7	102.7	102.7
122.5°	102.7	102.3	103.7	103.2	103.7
125°	103.7	103.7	104.6	104.2	104.6
127.5°	104.6	104.2	105.1	105.1	105.1
130°	105.6	105.6	106.6	106.6	106.6
132.5°	106.6	106.1	107.0	107.5	108.5
135°	107.5	107.0	107.5	108.9	109.9
137.5°	108.5	108.0	108.0	109.4	110.9
140°	109.9	110.4	109.4	110.9	111.3
142.5°	116.6	116.6	115.2	116.6	118.5
145°	123.3	123.3	123.3	124.2	124.7
147.5°	126.6	127.1	127.6	127.6	128.1
150°	127.6	127.6	127.6	127.6	128.1
152.5°	126.1	125.7	122.8	125.2	125.7
155°	119.5	119.0	115.2	118.5	118.5
157.5°	113.7	113.2	109.4	112.8	113.2
160°	109.4	111.8	108.0	111.3	108.9
162.5°	98.9	103.7	101.3	102.3	98.4
165°	90.8	92.7	92.2	91.7	89.8
167.5°	85.5	87.4	86.5	87.0	84.1
170°	80.3	81.7	82.2	80.8	78.8
172.5°	71.2	72.2	73.6	71.2	71.2
175°	65.9	65.0	65.0	65.0	65.0
177.5°	68.3	68.3	68.8	67.4	67.4
180°	71.2	71.2	71.2	71.2	71.2

(END OF REPORT)