

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: P231468

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

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: P231468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-5)  
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  
Description: STEELER CLEAR REFRACTOR LENS  
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: 9012.0 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Spacing Criteria (0/90/45): 1.47 / 1.48 / 1.49  
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')  
CIE Type: Direct

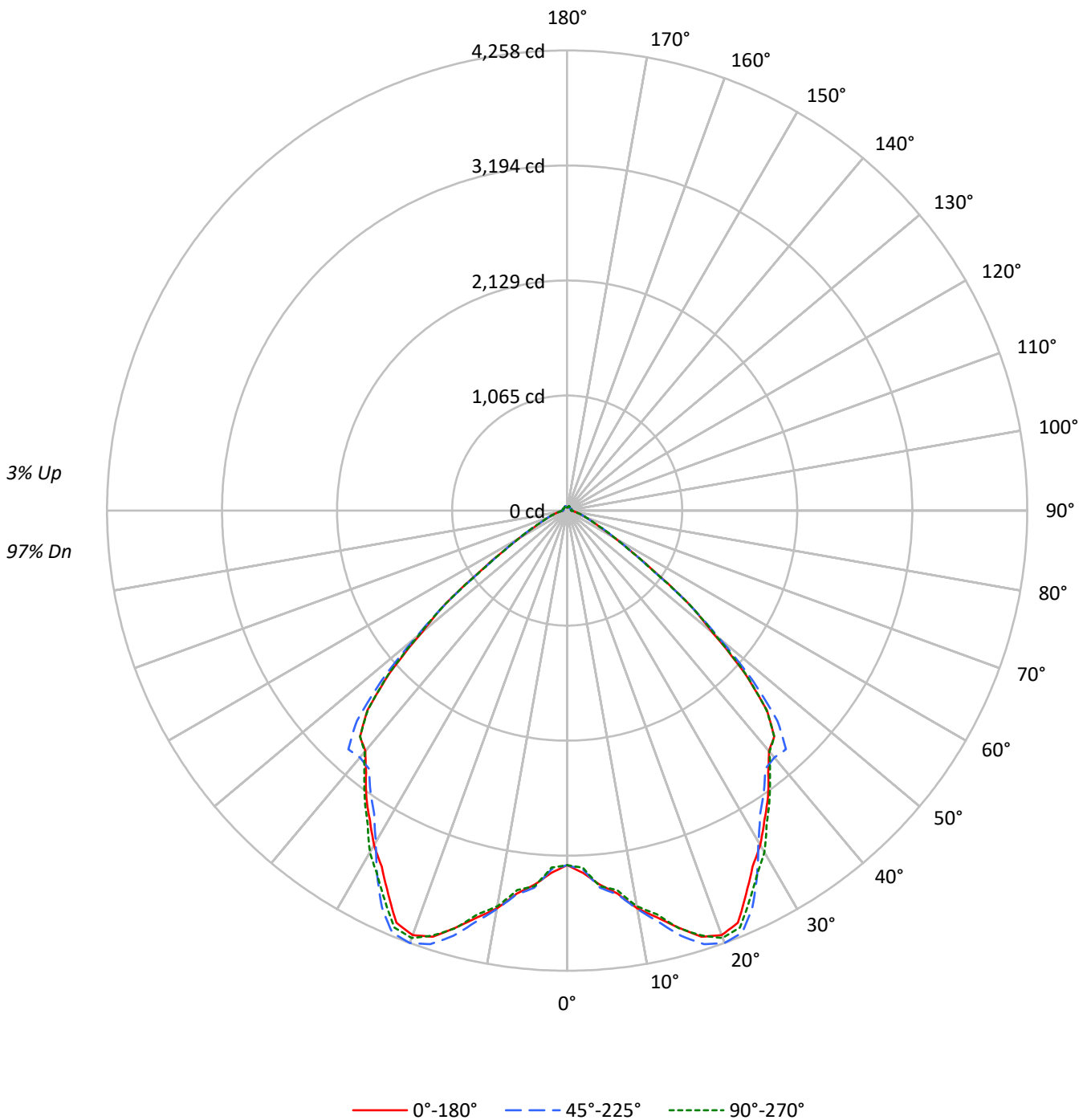
Input Watts (W): 64.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0	
RCR																						
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				
1	111	107	103	100	108	104	101	99	100	97	95	95	94	92	92	90	89	86				
2	103	96	91	86	100	94	89	85	90	86	82	87	83	80	83	81	78	76				
3	95	86	80	74	93	85	78	73	81	76	72	78	74	70	76	72	69	67				
4	88	78	70	65	86	76	70	64	74	68	63	71	66	62	69	65	61	59				
5	82	71	63	57	80	69	62	57	67	61	56	65	59	55	63	58	54	52				
6	76	64	56	51	74	63	56	50	61	55	50	59	54	49	58	53	49	47				
7	71	59	51	45	69	58	50	45	56	49	45	54	49	44	53	48	44	42				
8	66	54	46	41	64	53	46	41	52	45	40	50	44	40	49	43	39	38				
9	62	50	42	37	60	49	42	37	48	41	36	46	40	36	45	40	36	34				
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	42	37	33	31				

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

	0°	45°	90°
0°	13380	13380	13380
5°	13403	13520	13462
10°	13781	13812	13714
15°	14225	14502	14240
20°	14478	14747	14577
25°	13307	13779	13551
30°	12009	11892	12268
35°	10854	10631	10936
40°	9766	10035	9800
45°	8894	9370	8877
50°	6107	6366	6201
55°	3525	3406	3440
60°	1904	1937	1907
65°	1095	1141	1111
70°	748	768	768
75°	530	539	532
80°	395	400	393
85°	283	285	280



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	338.5	3.8
10°-20°	1147.7	12.7
20°-30°	1840.9	20.4
30°-40°	2024.3	22.5
40°-50°	1969.9	21.9
50°-60°	944.5	10.5
60°-70°	308.8	3.4
70°-80°	134.6	1.5
80°-90°	62.2	0.7
90°-100°	42.3	0.5
100°-110°	43.0	0.5
110°-120°	38.9	0.4
120°-130°	31.0	0.3
130°-140°	27.3	0.3
140°-150°	25.1	0.3
150°-160°	19.5	0.2
160°-170°	10.6	0.1
170°-180°	2.9	0.0
0°-30°	3327.1	36.9
0°-40°	5351.4	59.4
0°-60°	8265.7	91.7
0°-90°	8771.3	97.3
90°-120°	124.2	1.4
90°-150°	207.7	2.3
90°-180°	241.0	2.7
0°-180°	9012.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3282	3282	3282	3282	3282	
5°	3474	3471	3504	3490	3489	339
15°	3997	4041	4075	4027	4001	1137
25°	3916	4052	4055	4099	3987	1800
35°	3241	3171	3174	3203	3265	2023
45°	2613	2580	2753	2583	2609	1926
55°	988	992	954	984	964	941
65°	282	288	294	293	287	302
75°	121	122	123	122	121	133
85°	54	54	54	54	54	51
90°	38	39	39	39	38	21
95°	36	35	36	37	37	31
105°	44	40	40	38	42	44
115°	38	40	40	40	39	39
125°	33	33	33	34	34	31
135°	35	35	34	35	36	28
145°	40	40	40	40	41	25
155°	42	42	42	42	42	20
165°	38	37	37	37	36	11
175°	30	30	29	29	30	3
180°	30	30	30	30	30	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3281.5	3281.5	3281.5	3281.5	3281.5
2.5°	3354.6	3337.4	3321.1	3309.2	3306.3
5°	3473.6	3471.2	3503.7	3490.3	3488.9
7.5°	3576.3	3582.5	3581.1	3563.9	3541.4
10°	3735.9	3737.3	3744.5	3735.0	3717.7
12.5°	3857.3	3912.2	3895.5	3878.3	3824.8
15°	3996.8	4041.3	4074.7	4027.4	4001.1
17.5°	4134.4	4181.7	4206.6	4194.7	4121.1
20°	4179.8	4253.4	4257.7	4269.2	4208.5
22.5°	4128.7	4212.8	4228.6	4250.6	4175.5
25°	3915.6	4052.2	4054.6	4098.6	3987.3
27.5°	3714.9	3830.0	3805.7	3887.4	3802.8
30°	3573.4	3593.5	3538.6	3641.8	3650.4
32.5°	3397.6	3347.9	3324.0	3372.7	3436.3
35°	3240.8	3171.1	3174.4	3202.6	3265.2
37.5°	3057.3	3106.1	3011.5	3145.3	3082.2
40°	2904.0	2998.1	2983.8	3021.0	2914.0
42.5°	2836.1	2827.0	2997.1	2832.8	2836.6
45°	2613.4	2580.4	2753.4	2583.3	2608.6
47.5°	2228.3	2335.8	2329.6	2367.8	2242.1
50°	1759.5	1869.4	1834.0	1915.3	1786.7
52.5°	1420.7	1373.4	1411.1	1388.2	1420.7
55°	987.7	992.5	954.3	983.9	963.8
57.5°	700.5	716.3	702.5	701.5	694.3
60°	514.2	516.1	523.3	521.8	515.1
62.5°	376.1	379.9	388.0	387.5	383.2
65°	282.4	287.7	294.4	292.9	286.7
67.5°	220.3	226.0	227.5	228.4	229.4
70°	182.5	184.5	187.3	187.3	187.3
72.5°	152.0	154.3	154.8	155.3	154.3
75°	120.9	121.9	122.8	121.9	121.4
77.5°	99.9	99.9	99.4	98.9	99.4
80°	83.1	83.6	84.1	83.1	82.7
82.5°	67.9	68.3	68.8	68.3	68.3
85°	54.0	54.0	54.5	54.5	53.5
87.5°	44.4	44.4	44.4	44.9	44.4
90°	37.8	38.7	38.7	39.2	38.2
92.5°	33.9	34.9	34.9	35.8	34.9
95°	35.8	35.4	35.8	36.8	37.3
97.5°	40.1	41.1	42.5	44.0	42.5
100°	42.1	45.4	46.4	46.4	43.5
102.5°	41.1	40.6	42.5	41.6	43.0
105°	44.0	40.1	40.1	38.2	41.6
107.5°	38.7	40.6	34.4	40.6	38.2
110°	39.2	38.2	37.8	39.2	39.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	40.1	36.8	39.7	36.8	40.1
115°	37.8	40.1	39.7	39.7	38.7
117.5°	39.2	40.1	41.1	41.6	39.2
120°	38.2	36.8	38.2	39.2	39.2
122.5°	34.4	33.9	34.4	35.4	37.3
125°	33.0	33.0	33.0	33.5	34.4
127.5°	33.5	33.5	33.0	33.5	33.9
130°	34.9	34.4	34.9	34.9	35.4
132.5°	35.4	34.9	33.9	34.9	36.3
135°	35.4	34.9	33.9	34.9	35.8
137.5°	35.8	35.4	35.4	35.4	36.3
140°	36.8	37.3	37.3	37.3	37.3
142.5°	38.7	38.7	38.7	38.7	39.7
145°	40.1	39.7	40.1	40.1	41.1
147.5°	41.6	41.1	41.6	41.6	42.1
150°	42.5	42.1	42.5	42.5	42.5
152.5°	43.0	42.5	43.0	43.0	43.0
155°	42.5	42.5	42.5	42.5	42.1
157.5°	41.6	41.6	41.6	41.6	41.1
160°	40.6	41.1	40.6	40.6	40.1
162.5°	39.2	39.2	39.2	38.7	38.7
165°	37.8	37.3	37.3	36.8	36.3
167.5°	35.8	35.4	34.9	34.9	34.4
170°	33.0	33.0	33.0	32.5	32.5
172.5°	30.1	29.6	29.6	29.6	29.1
175°	29.6	29.6	29.1	29.1	29.6
177.5°	29.6	29.6	30.1	29.6	29.6
180°	30.1	30.1	30.1	30.1	30.1

(END OF REPORT)