

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: P231474

Luminaire Tested: **SSLED-LD5-15-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: P231474  
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-LD5-15-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: 14897.0 lumens  
Efficiency: N/A  
Efficacy: 134.5 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

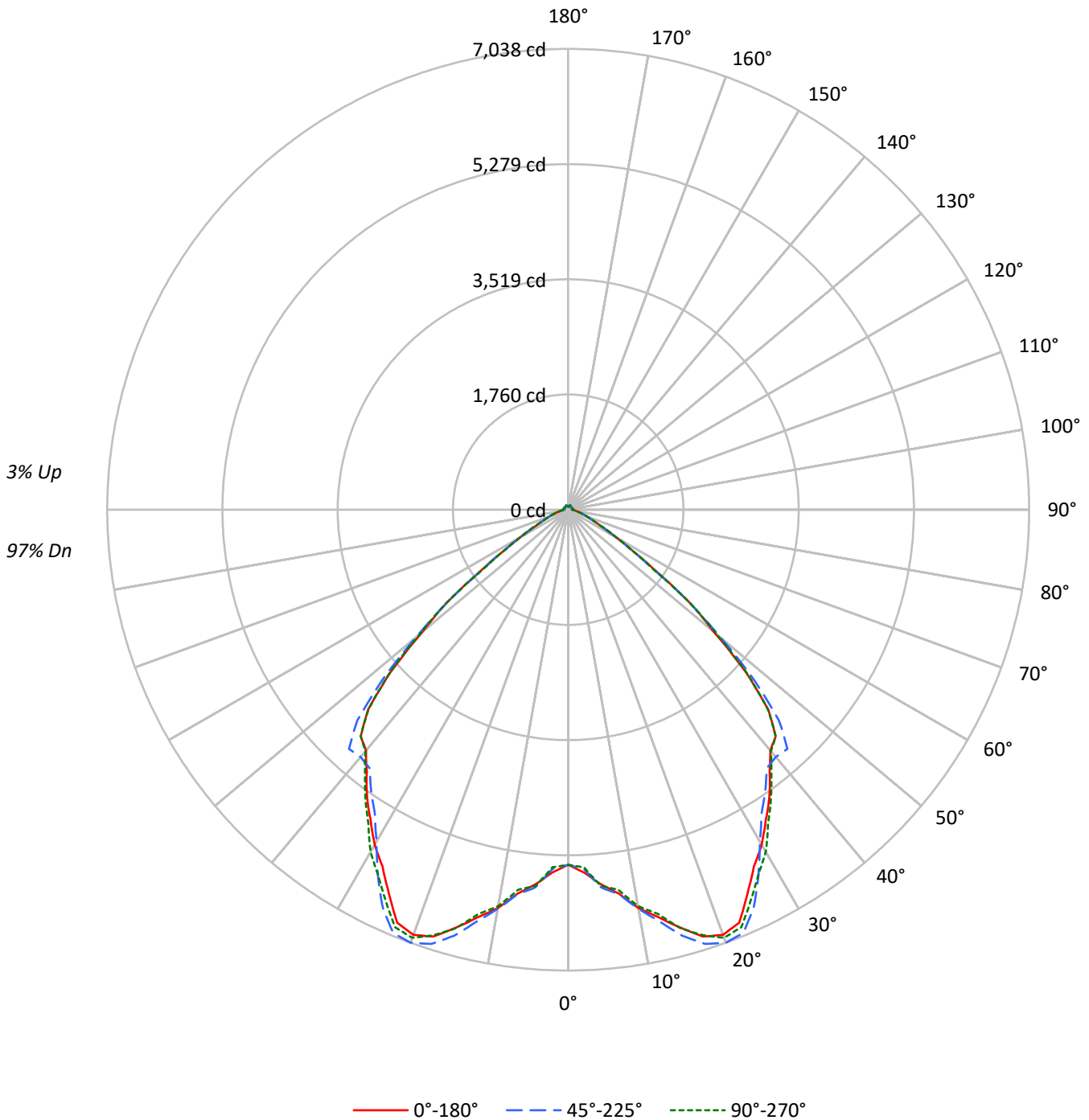
Input Watts (W): 110.74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	22118	22118	22118
5°	22156	22348	22253
10°	22780	22832	22669
15°	23514	23972	23539
20°	23932	24378	24096
25°	21997	22778	22399
30°	19852	19658	20279
35°	17942	17574	18077
40°	16144	16587	16199
45°	14701	15489	14674
50°	10095	10523	10251
55°	5827	5630	5686
60°	3146	3202	3152
65°	1809	1886	1837
70°	1237	1269	1269
75°	876	890	880
80°	653	661	650
85°	467	471	463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	559.6	3.8
10°-20°	1897.2	12.7
20°-30°	3043.1	20.4
30°-40°	3346.2	22.5
40°-50°	3256.2	21.9
50°-60°	1561.2	10.5
60°-70°	510.5	3.4
70°-80°	222.5	1.5
80°-90°	102.8	0.7
90°-100°	70.0	0.5
100°-110°	71.1	0.5
110°-120°	64.3	0.4
120°-130°	51.2	0.3
130°-140°	45.2	0.3
140°-150°	41.5	0.3
150°-160°	32.3	0.2
160°-170°	17.5	0.1
170°-180°	4.8	0.0
0°-30°	5499.8	36.9
0°-40°	8845.9	59.4
0°-60°	13663.4	91.7
0°-90°	14499.2	97.3
90°-120°	205.4	1.4
90°-150°	343.3	2.3
90°-180°	398.0	2.7
0°-180°	14897.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5424	5424	5424	5424	5424	
5°	5742	5738	5792	5770	5767	560
15°	6607	6680	6736	6657	6614	1880
25°	6472	6698	6702	6775	6591	2975
35°	5357	5242	5247	5294	5398	3344
45°	4320	4266	4552	4270	4312	3183
55°	1633	1641	1578	1626	1593	1555
65°	467	476	487	484	474	500
75°	200	201	203	201	201	220
85°	89	89	90	90	88	84
90°	62	64	64	65	63	35
95°	59	58	59	61	62	51
105°	73	66	66	63	69	72
115°	62	66	66	66	64	64
125°	54	54	54	55	57	51
135°	58	58	56	58	59	46
145°	66	66	66	66	68	41
155°	70	70	70	70	70	32
165°	62	62	62	61	60	18
175°	49	49	48	48	49	5
180°	50	50	50	50	50	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5424.3	5424.3	5424.3	5424.3	5424.3
2.5°	5545.2	5516.7	5489.9	5470.1	5465.4
5°	5741.9	5737.9	5791.6	5769.5	5767.1
7.5°	5911.7	5922.0	5919.6	5891.2	5854.0
10°	6175.5	6177.9	6189.7	6173.9	6145.5
12.5°	6376.2	6467.0	6439.4	6410.9	6322.4
15°	6606.8	6680.3	6735.6	6657.4	6613.9
17.5°	6834.3	6912.5	6953.6	6933.8	6812.2
20°	6909.3	7031.0	7038.1	7057.1	6956.7
22.5°	6824.8	6963.9	6989.9	7026.3	6902.2
25°	6472.5	6698.4	6702.4	6775.1	6591.0
27.5°	6140.8	6331.1	6290.8	6425.9	6286.1
30°	5907.0	5940.1	5849.3	6019.9	6034.1
32.5°	5616.3	5534.1	5494.6	5575.2	5680.2
35°	5357.2	5241.8	5247.4	5294.0	5397.5
37.5°	5053.8	5134.4	4978.0	5199.2	5094.9
40°	4800.3	4955.9	4932.2	4993.8	4816.9
42.5°	4688.1	4673.1	4954.3	4682.6	4688.9
45°	4320.0	4265.5	4551.5	4270.3	4312.1
47.5°	3683.4	3861.1	3850.8	3914.0	3706.3
50°	2908.5	3090.1	3031.7	3166.0	2953.5
52.5°	2348.4	2270.2	2332.6	2294.7	2348.4
55°	1632.7	1640.6	1577.5	1626.4	1593.2
57.5°	1158.0	1184.1	1161.2	1159.6	1147.7
60°	849.9	853.1	865.0	862.6	851.5
62.5°	621.7	628.0	641.4	640.6	633.5
65°	466.8	475.5	486.6	484.2	473.9
67.5°	364.1	373.6	376.0	377.6	379.2
70°	301.7	304.9	309.6	309.6	309.6
72.5°	251.2	255.1	255.9	256.7	255.1
75°	199.8	201.4	203.0	201.4	200.6
77.5°	165.1	165.1	164.3	163.5	164.3
80°	137.4	138.2	139.0	137.4	136.7
82.5°	112.2	113.0	113.7	113.0	113.0
85°	89.3	89.3	90.0	90.0	88.5
87.5°	73.5	73.5	73.5	74.3	73.5
90°	62.4	64.0	64.0	64.8	63.2
92.5°	56.1	57.7	57.7	59.2	57.7
95°	59.2	58.5	59.2	60.8	61.6
97.5°	66.4	67.9	70.3	72.7	70.3
100°	69.5	75.0	76.6	76.6	71.9
102.5°	67.9	67.1	70.3	68.7	71.1
105°	72.7	66.4	66.4	63.2	68.7
107.5°	64.0	67.1	56.9	67.1	63.2
110°	64.8	63.2	62.4	64.8	65.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	66.4	60.8	65.6	60.8	66.4
115°	62.4	66.4	65.6	65.6	64.0
117.5°	64.8	66.4	67.9	68.7	64.8
120°	63.2	60.8	63.2	64.8	64.8
122.5°	56.9	56.1	56.9	58.5	61.6
125°	54.5	54.5	54.5	55.3	56.9
127.5°	55.3	55.3	54.5	55.3	56.1
130°	57.7	56.9	57.7	57.7	58.5
132.5°	58.5	57.7	56.1	57.7	60.0
135°	58.5	57.7	56.1	57.7	59.2
137.5°	59.2	58.5	58.5	58.5	60.0
140°	60.8	61.6	61.6	61.6	61.6
142.5°	64.0	64.0	64.0	64.0	65.6
145°	66.4	65.6	66.4	66.4	67.9
147.5°	68.7	67.9	68.7	68.7	69.5
150°	70.3	69.5	70.3	70.3	70.3
152.5°	71.1	70.3	71.1	71.1	71.1
155°	70.3	70.3	70.3	70.3	69.5
157.5°	68.7	68.7	68.7	68.7	67.9
160°	67.1	67.9	67.1	67.1	66.4
162.5°	64.8	64.8	64.8	64.0	64.0
165°	62.4	61.6	61.6	60.8	60.0
167.5°	59.2	58.5	57.7	57.7	56.9
170°	54.5	54.5	54.5	53.7	53.7
172.5°	49.8	49.0	49.0	49.0	48.2
175°	49.0	49.0	48.2	48.2	49.0
177.5°	49.0	49.0	49.8	49.0	49.0
180°	49.8	49.8	49.8	49.8	49.8

(END OF REPORT)