

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: P231411

Luminaire Tested: **SSLED-LD5-15-W-UNV-L840-CD1-U-FRR22**

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: P231411  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-2)  
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-FRR22  
Description: STEELER WHITE 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: 15256.9 lumens  
Efficiency: N/A  
Efficacy: 137.8 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.43 / 1.45  
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')  
CIE Type: Direct

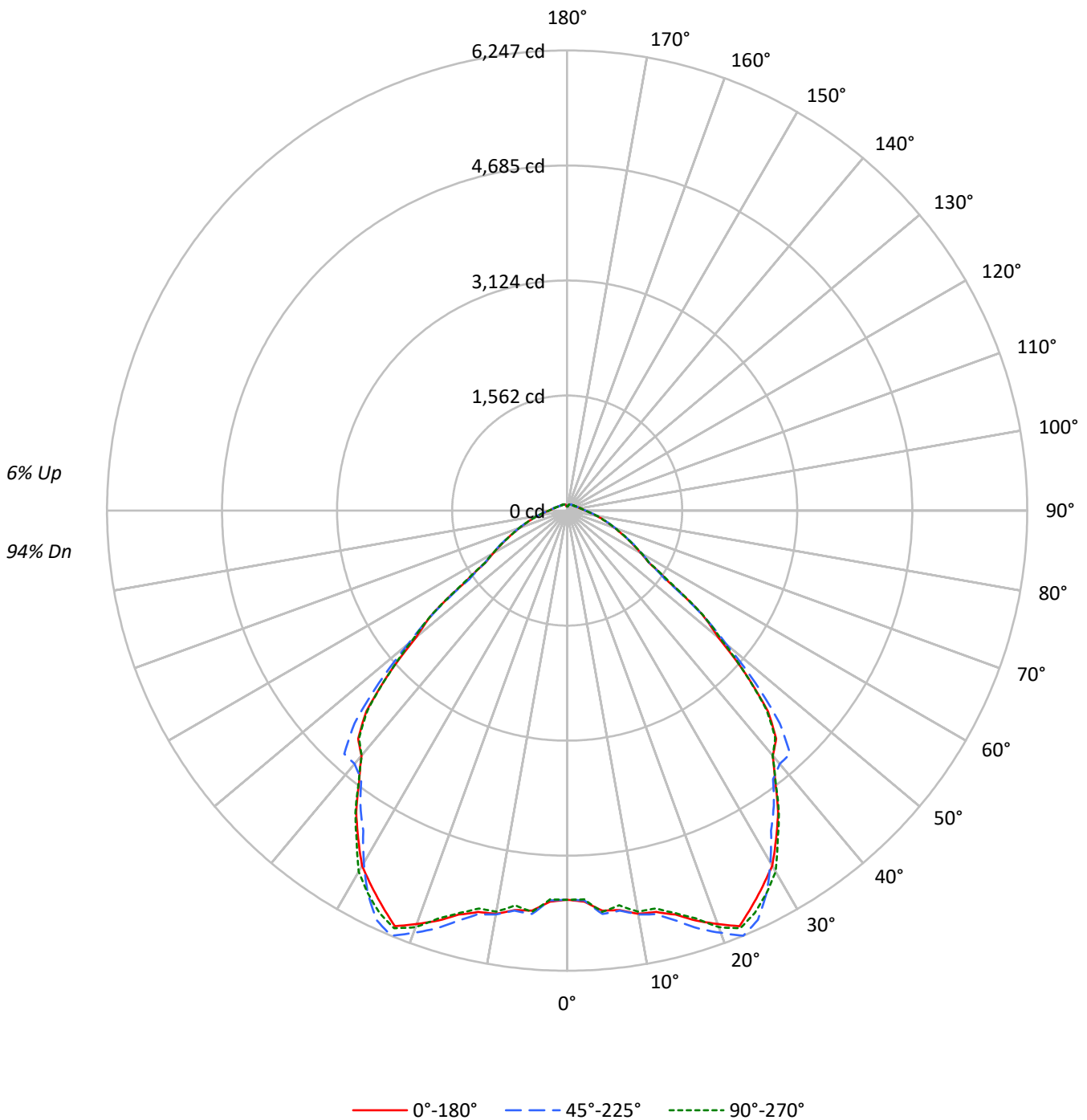
Input Watts (W): 110.74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94				
1	109	104	100	97	105	101	98	95	96	93	91	91	89	87	87	85	84	81				
2	100	93	87	81	97	90	85	80	86	81	77	82	78	75	78	75	72	70				
3	92	83	75	69	89	81	74	69	77	71	67	74	69	65	70	66	63	61				
4	85	74	66	60	82	72	65	59	69	63	58	66	61	57	64	59	55	53				
5	79	67	59	53	76	65	58	52	63	56	51	60	55	50	58	53	49	47				
6	73	61	52	46	71	59	52	46	57	50	45	55	49	44	53	48	44	42				
7	68	55	47	41	66	54	47	41	52	45	40	50	44	40	49	43	39	37				
8	63	51	43	37	61	50	42	37	48	41	36	46	40	36	45	39	35	33				
9	59	47	39	34	58	46	38	33	44	38	33	43	37	32	41	36	32	30				
10	55	43	35	31	54	42	35	30	41	34	30	40	34	30	38	33	29	28				

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

	0°	45°	90°
0°	21541	21541	21541
5°	21034	21211	21101
10°	20501	20536	20396
15°	20208	20528	20129
20°	20684	21130	20845
25°	20157	20831	20482
30°	18713	18553	19026
35°	16722	16386	16785
40°	14608	15102	14597
45°	13115	13898	13040
50°	9302	9796	9530
55°	6002	5785	6126
60°	4284	4342	4342
65°	3472	3511	3475
70°	2801	2846	2830
75°	2301	2335	2308
80°	1919	1942	1938
85°	1621	1650	1633



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	521.1	3.4
10°-20°	1641.2	10.8
20°-30°	2776.3	18.2
30°-40°	3104.4	20.3
40°-50°	2934.0	19.2
50°-60°	1612.8	10.6
60°-70°	902.7	5.9
70°-80°	567.7	3.7
80°-90°	345.9	2.3
90°-100°	230.9	1.5
100°-110°	172.1	1.1
110°-120°	131.7	0.9
120°-130°	102.8	0.7
130°-140°	80.7	0.5
140°-150°	61.7	0.4
150°-160°	42.9	0.3
160°-170°	22.3	0.1
170°-180°	5.6	0.0
0°-30°	4938.6	32.4
0°-40°	8043.0	52.7
0°-60°	12589.8	82.5
0°-90°	14406.1	94.4
90°-120°	534.8	3.5
90°-150°	780.0	5.1
90°-180°	851.0	5.6
0°-180°	15256.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5283	5283	5283	5283	5283	
5°	5451	5461	5497	5461	5468	521
15°	5678	5731	5768	5705	5656	1627
25°	5931	6143	6130	6229	6027	2719
35°	4993	4887	4893	4903	5012	3105
45°	3854	3821	4084	3787	3832	2858
55°	1682	1671	1621	1699	1716	1605
65°	896	899	906	901	896	893
75°	524	528	532	531	526	562
85°	310	310	315	311	312	272
90°	244	246	248	247	246	135
95°	208	209	211	210	209	165
105°	161	161	162	162	162	171
115°	131	132	132	133	133	131
125°	113	114	114	114	114	102
135°	104	104	104	104	104	80
145°	98	98	98	98	99	62
155°	92	93	92	92	93	43
165°	78	78	77	77	77	22
175°	57	57	56	56	57	6
180°	58	58	58	58	58	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5282.8	5282.8	5282.8	5282.8	5282.8
2.5°	5313.6	5309.7	5295.5	5282.0	5282.8
5°	5451.1	5460.6	5496.9	5461.4	5468.5
7.5°	5470.0	5492.2	5477.9	5447.9	5405.3
10°	5557.7	5565.6	5567.2	5551.4	5529.3
12.5°	5581.4	5654.1	5613.0	5598.8	5532.4
15°	5677.8	5730.7	5767.8	5704.6	5655.7
17.5°	5838.1	5928.2	5951.9	5925.0	5802.6
20°	5971.6	6097.2	6100.4	6112.2	6018.2
22.5°	6108.3	6226.8	6247.3	6269.4	6137.5
25°	5931.3	6143.0	6129.6	6229.1	6026.9
27.5°	5749.7	5902.1	5861.8	5974.8	5857.9
30°	5568.0	5602.0	5520.6	5635.9	5661.2
32.5°	5279.7	5176.2	5153.3	5221.2	5318.4
35°	4992.9	4887.1	4892.6	4902.9	5011.9
37.5°	4638.3	4746.5	4593.3	4775.7	4648.5
40°	4343.6	4510.3	4490.6	4516.6	4340.5
42.5°	4199.9	4192.0	4479.5	4197.5	4180.1
45°	3853.9	3820.7	4083.8	3786.8	3831.8
47.5°	3290.7	3503.2	3470.8	3504.8	3287.6
50°	2680.1	2887.9	2822.3	2939.2	2745.7
52.5°	2306.5	2204.6	2278.9	2236.2	2316.0
55°	1681.7	1671.4	1620.9	1699.1	1716.4
57.5°	1314.4	1321.5	1327.0	1322.3	1319.1
60°	1157.2	1173.8	1173.0	1172.2	1173.0
62.5°	1016.6	1026.1	1036.3	1029.2	1030.0
65°	895.7	898.9	906.0	901.3	896.5
67.5°	778.8	788.3	792.3	793.1	789.1
70°	683.3	690.4	694.3	692.7	690.4
72.5°	601.9	605.9	613.0	610.6	605.9
75°	524.5	528.4	532.4	530.8	526.1
77.5°	459.7	462.9	466.0	466.8	463.7
80°	403.6	406.8	408.4	406.0	407.6
82.5°	353.1	356.2	357.8	357.0	356.2
85°	309.6	310.4	315.2	311.2	312.0
87.5°	272.5	273.3	274.9	274.9	273.3
90°	244.1	246.4	248.0	247.2	245.7
92.5°	224.3	226.7	226.7	226.7	225.9
95°	207.7	209.3	210.9	210.1	209.3
97.5°	194.3	195.1	196.7	195.9	195.1
100°	181.7	182.5	184.0	183.3	182.5
102.5°	169.8	171.4	172.2	172.2	171.4
105°	161.1	161.1	161.9	161.9	161.9
107.5°	152.5	152.5	153.2	153.2	153.2
110°	145.3	145.3	145.3	145.3	146.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	137.4	138.2	138.2	138.2	139.0
115°	131.1	131.9	131.9	132.7	132.7
117.5°	125.6	125.6	126.4	126.4	127.2
120°	120.9	121.6	121.6	122.4	122.4
122.5°	116.9	116.9	117.7	117.7	118.5
125°	113.0	113.7	113.7	114.5	114.5
127.5°	109.8	110.6	111.4	111.4	111.4
130°	108.2	109.0	109.0	109.0	109.8
132.5°	105.8	105.8	105.8	106.6	107.4
135°	103.5	103.5	103.5	103.5	104.3
137.5°	101.1	101.9	101.9	101.9	101.9
140°	99.5	100.3	100.3	100.3	100.3
142.5°	98.7	99.5	99.5	99.5	99.5
145°	97.9	97.9	97.9	97.9	98.7
147.5°	97.2	97.2	97.2	97.2	97.2
150°	96.4	96.4	95.6	95.6	96.4
152.5°	94.8	94.8	94.0	94.8	94.8
155°	92.4	93.2	92.4	92.4	93.2
157.5°	90.8	90.8	90.8	90.8	90.8
160°	87.7	87.7	86.9	86.9	87.7
162.5°	82.9	82.9	82.9	82.9	82.9
165°	78.2	78.2	77.4	77.4	77.4
167.5°	72.7	72.7	72.7	72.7	72.7
170°	65.6	66.4	65.6	65.6	65.6
172.5°	57.7	57.7	57.7	57.7	57.7
175°	56.9	56.9	56.1	56.1	56.9
177.5°	56.9	57.7	57.7	57.7	56.9
180°	58.5	58.5	58.5	58.5	58.5

(END OF REPORT)