

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: P231456

Luminaire Tested: **SSLED-LD5-18-W-UNV-L840-CD1-U-FRR22-FRCDL22**

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: P231456  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-4)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SSLED-LD5-18-W-UNV-L840-CD1-U-FRR22-FRCDL22  
Description: STEELER WHITE REFRACTOR LENS AND CIRCULAR 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: 16871.0 lumens  
Efficiency: N/A  
Efficacy: 126.1 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.16 / 1.37  
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')  
CIE Type: Semi-Direct

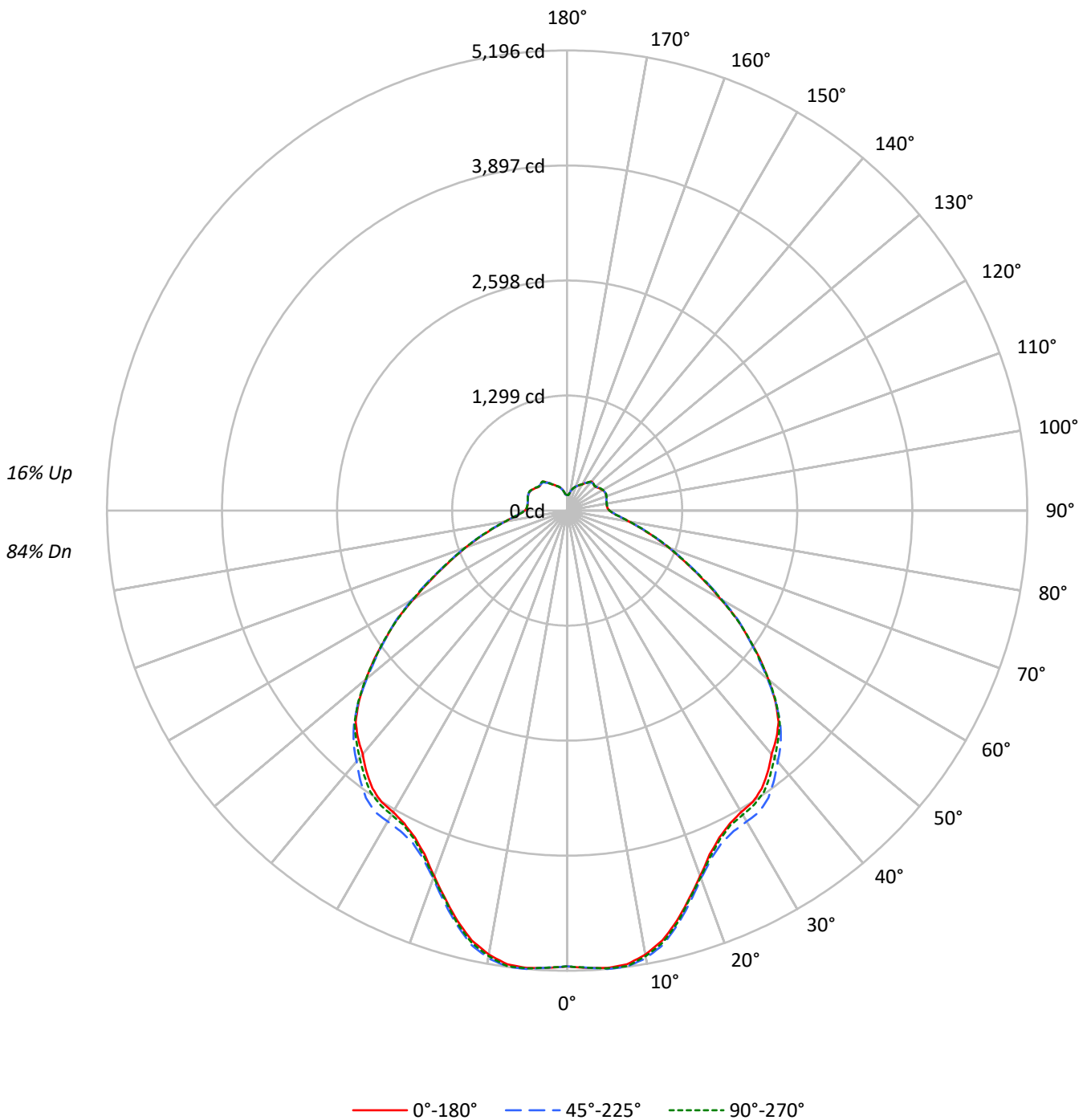
Input Watts (W): 133.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	115	115	115	115	111	111	111	111	102	102	102	95	95	95	88	88	88	84
1	104	100	95	91	100	96	92	88	89	85	82	82	79	77	76	74	72	69
2	95	87	80	74	91	83	77	72	77	72	68	72	68	64	66	63	60	57
3	87	76	68	61	83	73	66	60	68	62	57	63	58	54	59	55	51	48
4	79	67	59	52	76	65	57	51	60	54	48	56	51	46	52	48	44	41
5	73	60	51	45	70	58	50	44	54	47	42	51	45	40	47	42	38	36
6	67	54	45	39	64	52	44	38	49	42	37	46	40	35	43	38	34	31
7	62	49	40	34	60	47	39	34	44	37	32	42	36	31	39	34	30	28
8	58	45	36	30	55	43	35	30	41	34	29	38	32	28	36	31	27	25
9	54	41	33	27	52	40	32	27	37	31	26	35	29	25	33	28	24	22
10	51	38	30	25	49	37	29	24	34	28	23	33	27	23	31	26	22	20

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

	0°	45°	90°
0°	20990	20990	20990
5°	20003	20049	20024
10°	18776	18927	18845
15°	17066	17205	17142
20°	15210	15304	15255
25°	13833	14047	13899
30°	13208	13623	13333
35°	12833	13265	12982
40°	12078	12440	12256
45°	11492	11581	11556
50°	10301	10246	10317
55°	8893	8896	8933
60°	7410	7503	7452
65°	6064	6118	6086
70°	4988	5018	5022
75°	4062	4115	4115
80°	3358	3384	3389
85°	2905	2929	2900



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	493.2	2.9
10°-20°	1349.2	8.0
20°-30°	1918.4	11.4
30°-40°	2423.5	14.4
40°-50°	2597.1	15.4
50°-60°	2227.3	13.2
60°-70°	1575.7	9.3
70°-80°	1000.2	5.9
80°-90°	623.3	3.7
90°-100°	501.1	3.0
100°-110°	486.6	2.9
110°-120°	469.5	2.8
120°-130°	397.8	2.4
130°-140°	326.5	1.9
140°-150°	242.2	1.4
150°-160°	146.8	0.9
160°-170°	74.1	0.4
170°-180°	18.5	0.1
0°-30°	3760.8	22.3
0°-40°	6184.2	36.7
0°-60°	11008.6	65.3
0°-90°	14207.8	84.2
90°-120°	1457.2	8.6
90°-150°	2423.8	14.4
90°-180°	2663.0	15.8
0°-180°	16871.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5148	5148	5148	5148	5148	
5°	5184	5190	5196	5193	5190	492
15°	4795	4802	4834	4822	4816	1343
25°	4070	4132	4133	4158	4090	1894
35°	3832	3846	3961	3876	3876	2385
45°	3377	3384	3403	3410	3396	2576
55°	2492	2491	2493	2480	2503	2231
65°	1565	1574	1579	1575	1570	1564
75°	926	936	938	938	938	993
85°	555	554	560	555	554	486
90°	478	479	481	480	478	263
95°	453	454	456	456	455	370
105°	458	458	458	459	460	485
115°	474	475	476	478	479	468
125°	442	443	444	444	446	395
135°	421	421	421	423	425	326
145°	383	385	384	382	380	243
155°	314	315	315	313	316	146
165°	261	260	259	260	261	74
175°	181	180	179	180	180	19
180°	176	176	176	176	176	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5147.7	5147.7	5147.7	5147.7	5147.7
2.5°	5169.0	5169.0	5165.3	5168.1	5165.3
5°	5183.9	5190.4	5195.9	5193.2	5189.5
7.5°	5168.1	5174.6	5193.2	5188.5	5188.5
10°	5090.2	5102.2	5131.0	5122.6	5108.7
12.5°	4972.3	4992.7	5018.7	5002.9	4996.4
15°	4795.0	4801.5	4834.0	4822.0	4816.4
17.5°	4587.2	4587.2	4628.0	4626.1	4598.3
20°	4391.4	4405.3	4418.3	4431.3	4404.4
22.5°	4203.0	4251.2	4250.3	4274.4	4225.2
25°	4070.3	4131.5	4133.4	4158.4	4089.8
27.5°	3983.0	4051.7	4077.7	4075.8	4001.6
30°	3930.1	3970.0	4053.6	4002.5	3967.3
32.5°	3902.3	3904.2	4035.9	3935.7	3935.7
35°	3831.8	3845.7	3960.8	3876.3	3876.3
37.5°	3721.3	3775.2	3837.3	3803.9	3765.0
40°	3591.4	3680.5	3699.1	3693.5	3644.3
42.5°	3494.9	3545.0	3572.9	3566.4	3524.6
45°	3377.0	3384.5	3403.0	3410.4	3395.6
47.5°	3189.6	3186.8	3195.2	3199.8	3201.6
50°	2967.8	2946.4	2952.0	2951.1	2972.4
52.5°	2740.4	2713.5	2713.5	2708.9	2727.4
55°	2491.7	2490.8	2492.6	2479.7	2502.9
57.5°	2267.1	2274.6	2280.1	2264.4	2258.8
60°	2001.7	2026.8	2026.8	2020.3	2012.9
62.5°	1771.6	1790.1	1800.3	1785.5	1784.6
65°	1564.6	1573.9	1578.6	1574.8	1570.2
67.5°	1375.3	1386.5	1392.0	1383.7	1384.6
70°	1216.6	1220.3	1224.0	1232.4	1225.0
72.5°	1064.4	1067.2	1074.6	1072.8	1072.8
75°	926.2	936.4	938.2	938.2	938.2
77.5°	811.1	816.7	815.7	813.9	812.0
80°	706.2	711.8	711.8	711.8	712.7
82.5°	624.6	623.6	625.5	627.3	627.3
85°	555.0	554.0	559.6	555.0	554.0
87.5°	506.7	509.5	511.3	510.4	508.6
90°	477.9	478.9	480.7	479.8	477.9
92.5°	460.3	462.2	464.0	464.0	463.1
95°	452.9	453.8	455.7	455.7	454.7
97.5°	451.0	451.9	453.8	453.8	452.9
100°	451.9	452.9	453.8	453.8	454.7
102.5°	452.9	453.8	454.7	455.7	455.7
105°	457.5	457.5	458.4	459.4	460.3
107.5°	463.1	464.0	464.9	465.9	465.9
110°	469.6	470.5	470.5	472.4	472.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	474.2	475.1	475.1	477.0	477.9
115°	474.2	475.1	476.1	477.9	478.9
117.5°	470.5	470.5	471.4	473.3	475.1
120°	462.2	462.2	464.0	464.9	466.8
122.5°	451.9	452.9	454.7	455.7	456.6
125°	441.7	442.7	444.5	444.5	446.4
127.5°	427.8	430.6	432.5	432.5	433.4
130°	416.7	419.5	421.3	422.2	421.3
132.5°	413.9	416.7	419.5	417.6	415.8
135°	421.3	421.3	421.3	423.2	425.0
137.5°	428.7	426.9	420.4	427.8	430.6
140°	428.7	422.2	417.6	421.3	428.7
142.5°	407.4	405.5	396.3	403.7	406.5
145°	383.3	385.1	384.2	382.3	380.5
147.5°	362.9	366.6	369.3	361.9	361.9
150°	340.6	348.9	348.9	346.1	343.4
152.5°	328.5	330.4	330.4	328.5	329.4
155°	313.7	314.6	314.6	312.7	315.5
157.5°	298.8	300.7	300.7	300.7	299.7
160°	288.6	289.5	288.6	288.6	287.7
162.5°	275.6	274.7	274.7	274.7	275.6
165°	260.8	259.8	258.9	259.8	260.8
167.5°	243.1	243.1	242.2	242.2	242.2
170°	221.8	222.7	221.8	221.8	220.9
172.5°	194.0	193.0	194.0	194.0	194.9
175°	181.0	180.0	179.1	180.0	180.0
177.5°	176.3	177.3	177.3	176.3	175.4
180°	176.3	176.3	176.3	176.3	176.3

(END OF REPORT)