

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: P231459

Luminaire Tested: **SSLED-LD5-24-W-UNV-L840-CD2-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: P231459
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-LD5-24-W-UNV-L840-CD2-U-FRR22-FRCDL22
Description: STEELER WHITE REFRACTOR LENS AND CIRCULAR DROP
Light Source: (240) 4000 CCT, 80 CRI LEDS
Ballast/Driver: (2) ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22606.0 lumens
Efficiency: N/A
Efficacy: 118.6 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

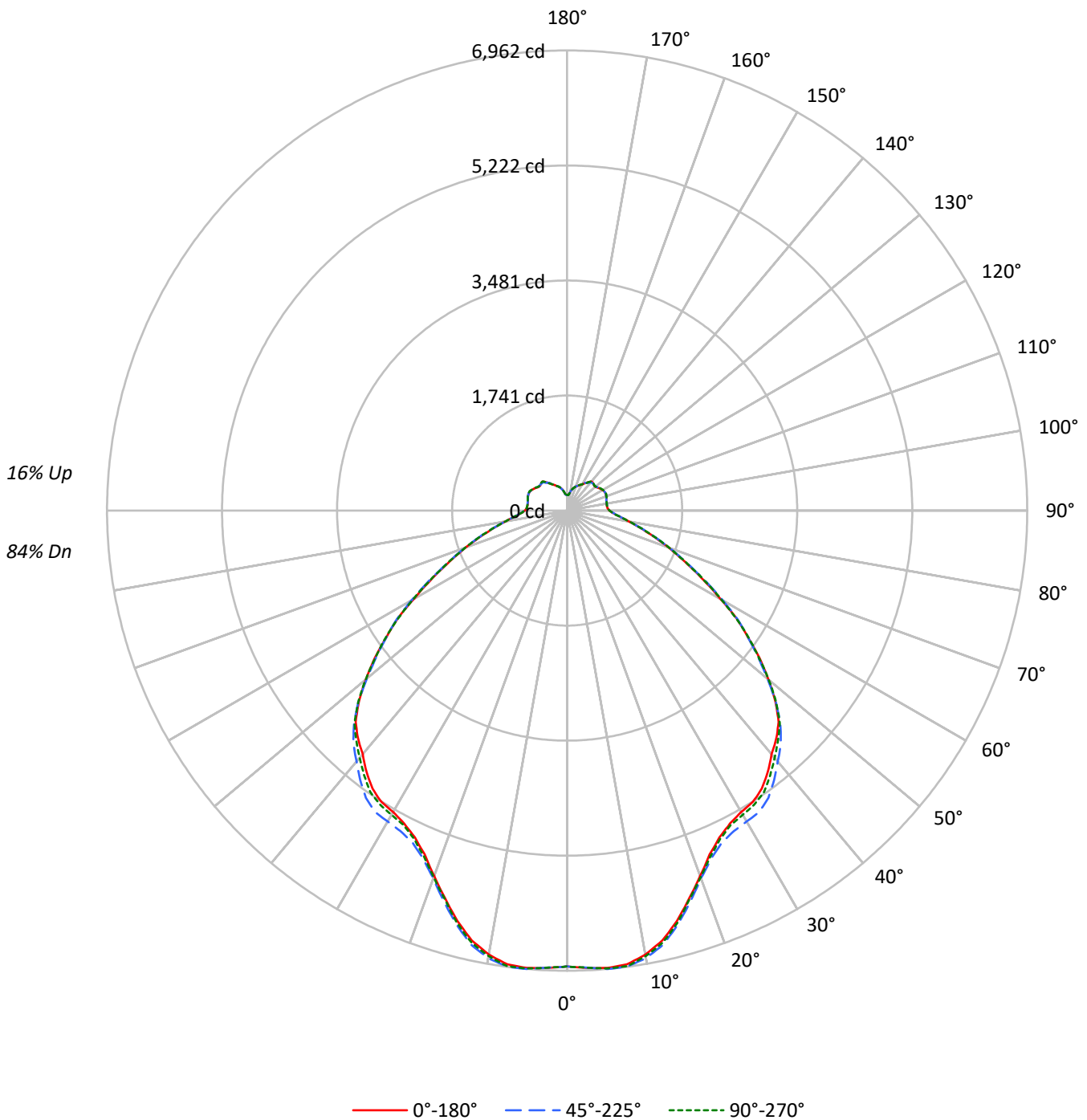
Input Watts (W): 190.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	28125	28125	28125
5°	26803	26865	26831
10°	25159	25361	25250
15°	22867	23053	22969
20°	20381	20506	20441
25°	18535	18822	18624
30°	17698	18254	17866
35°	17195	17774	17395
40°	16184	16669	16422
45°	15399	15517	15484
50°	13802	13729	13824
55°	11916	11921	11969
60°	9929	10054	9985
65°	8126	8198	8155
70°	6683	6724	6729
75°	5443	5514	5514
80°	4499	4534	4541
85°	3892	3925	3886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	660.9	2.9
10°-20°	1807.8	8.0
20°-30°	2570.5	11.4
30°-40°	3247.3	14.4
40°-50°	3479.9	15.4
50°-60°	2984.5	13.2
60°-70°	2111.3	9.3
70°-80°	1340.2	5.9
80°-90°	835.2	3.7
90°-100°	671.4	3.0
100°-110°	652.0	2.9
110°-120°	629.1	2.8
120°-130°	533.1	2.4
130°-140°	437.5	1.9
140°-150°	324.5	1.4
150°-160°	196.7	0.9
160°-170°	99.3	0.4
170°-180°	24.8	0.1
0°-30°	5039.2	22.3
0°-40°	8286.4	36.7
0°-60°	14750.8	65.3
0°-90°	19037.6	84.2
90°-120°	1952.6	8.6
90°-150°	3247.7	14.4
90°-180°	3568.0	15.8
0°-180°	22606.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6898	6898	6898	6898	6898	
5°	6946	6955	6962	6958	6954	659
15°	6425	6434	6477	6461	6454	1799
25°	5454	5536	5538	5572	5480	2537
35°	5134	5153	5307	5194	5194	3196
45°	4525	4535	4560	4570	4550	3452
55°	3339	3338	3340	3323	3354	2990
65°	2096	2109	2115	2110	2104	2095
75°	1241	1255	1257	1257	1257	1331
85°	744	742	750	744	742	651
90°	640	642	644	643	640	353
95°	607	608	610	610	609	496
105°	613	613	614	616	617	650
115°	635	637	638	640	642	627
125°	592	593	596	596	598	530
135°	564	564	564	567	570	437
145°	514	516	515	512	510	325
155°	420	422	422	419	423	196
165°	349	348	347	348	349	100
175°	242	241	240	241	241	25
180°	236	236	236	236	236	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6897.6	6897.6	6897.6	6897.6	6897.6
2.5°	6926.2	6926.2	6921.2	6924.9	6921.2
5°	6946.1	6954.8	6962.2	6958.5	6953.5
7.5°	6924.9	6933.6	6958.5	6952.3	6952.3
10°	6820.5	6836.6	6875.2	6864.0	6845.3
12.5°	6662.5	6689.9	6724.7	6703.6	6694.9
15°	6425.0	6433.7	6477.3	6461.1	6453.6
17.5°	6146.5	6146.5	6201.2	6198.7	6161.4
20°	5884.1	5902.8	5920.2	5937.6	5901.5
22.5°	5631.7	5696.4	5695.1	5727.4	5661.5
25°	5453.9	5536.0	5538.4	5572.0	5480.0
27.5°	5337.0	5429.0	5463.8	5461.3	5361.9
30°	5266.1	5319.6	5431.5	5363.1	5315.9
32.5°	5228.8	5231.3	5407.9	5273.6	5273.6
35°	5134.3	5153.0	5307.2	5194.0	5194.0
37.5°	4986.3	5058.5	5141.8	5097.0	5044.8
40°	4812.2	4931.6	4956.5	4949.0	4883.1
42.5°	4682.9	4750.1	4787.4	4778.7	4722.7
45°	4525.0	4535.0	4559.8	4569.8	4549.9
47.5°	4273.8	4270.1	4281.3	4287.5	4290.0
50°	3976.6	3948.0	3955.5	3954.3	3982.9
52.5°	3672.0	3635.9	3635.9	3629.7	3654.6
55°	3338.7	3337.5	3340.0	3322.6	3353.7
57.5°	3037.8	3047.8	3055.2	3034.1	3026.6
60°	2682.2	2715.8	2715.8	2707.0	2697.1
62.5°	2373.8	2398.7	2412.3	2392.4	2391.2
65°	2096.5	2108.9	2115.2	2110.2	2104.0
67.5°	1842.8	1857.8	1865.2	1854.0	1855.3
70°	1630.2	1635.2	1640.1	1651.3	1641.4
72.5°	1426.3	1430.0	1439.9	1437.5	1437.5
75°	1241.0	1254.7	1257.2	1257.2	1257.2
77.5°	1086.8	1094.3	1093.0	1090.5	1088.0
80°	946.3	953.7	953.7	953.7	955.0
82.5°	836.9	835.6	838.1	840.6	840.6
85°	743.6	742.4	749.8	743.6	742.4
87.5°	678.9	682.7	685.2	683.9	681.4
90°	640.4	641.6	644.1	642.9	640.4
92.5°	616.8	619.3	621.7	621.7	620.5
95°	606.8	608.1	610.5	610.5	609.3
97.5°	604.3	605.6	608.1	608.1	606.8
100°	605.6	606.8	608.1	608.1	609.3
102.5°	606.8	608.1	609.3	610.5	610.5
105°	613.0	613.0	614.3	615.5	616.8
107.5°	620.5	621.7	623.0	624.2	624.2
110°	629.2	630.4	630.4	632.9	632.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	635.4	636.7	636.7	639.1	640.4
115°	635.4	636.7	637.9	640.4	641.6
117.5°	630.4	630.4	631.7	634.2	636.7
120°	619.3	619.3	621.7	623.0	625.5
122.5°	605.6	606.8	609.3	610.5	611.8
125°	591.9	593.1	595.6	595.6	598.1
127.5°	573.2	577.0	579.5	579.5	580.7
130°	558.3	562.1	564.5	565.8	564.5
132.5°	554.6	558.3	562.1	559.6	557.1
135°	564.5	564.5	564.5	567.0	569.5
137.5°	574.5	572.0	563.3	573.2	577.0
140°	574.5	565.8	559.6	564.5	574.5
142.5°	545.9	543.4	531.0	540.9	544.6
145°	513.6	516.0	514.8	512.3	509.8
147.5°	486.2	491.2	494.9	485.0	485.0
150°	456.4	467.5	467.5	463.8	460.1
152.5°	440.2	442.7	442.7	440.2	441.4
155°	420.3	421.5	421.5	419.1	422.8
157.5°	400.4	402.9	402.9	402.9	401.6
160°	386.7	388.0	386.7	386.7	385.5
162.5°	369.3	368.1	368.1	368.1	369.3
165°	349.4	348.2	346.9	348.2	349.4
167.5°	325.8	325.8	324.5	324.5	324.5
170°	297.2	298.4	297.2	297.2	295.9
172.5°	259.9	258.6	259.9	259.9	261.1
175°	242.5	241.2	240.0	241.2	241.2
177.5°	236.3	237.5	237.5	236.3	235.0
180°	236.3	236.3	236.3	236.3	236.3

(END OF REPORT)