

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: P231438

Luminaire Tested: **SSLED-LD5-24-W-UNV-L840-CD2-U-FRR22-CLCDL22**

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: P231438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-3)
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-CLCDL22
Description: STEELER WHITE REFRACTOR LENS AND CONICAL 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: 22927.0 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.43 / 1.55
Luminous Opening: Vertical Cylinder (Dia: 1.67' x H: 1.17')
CIE Type: Semi-Direct

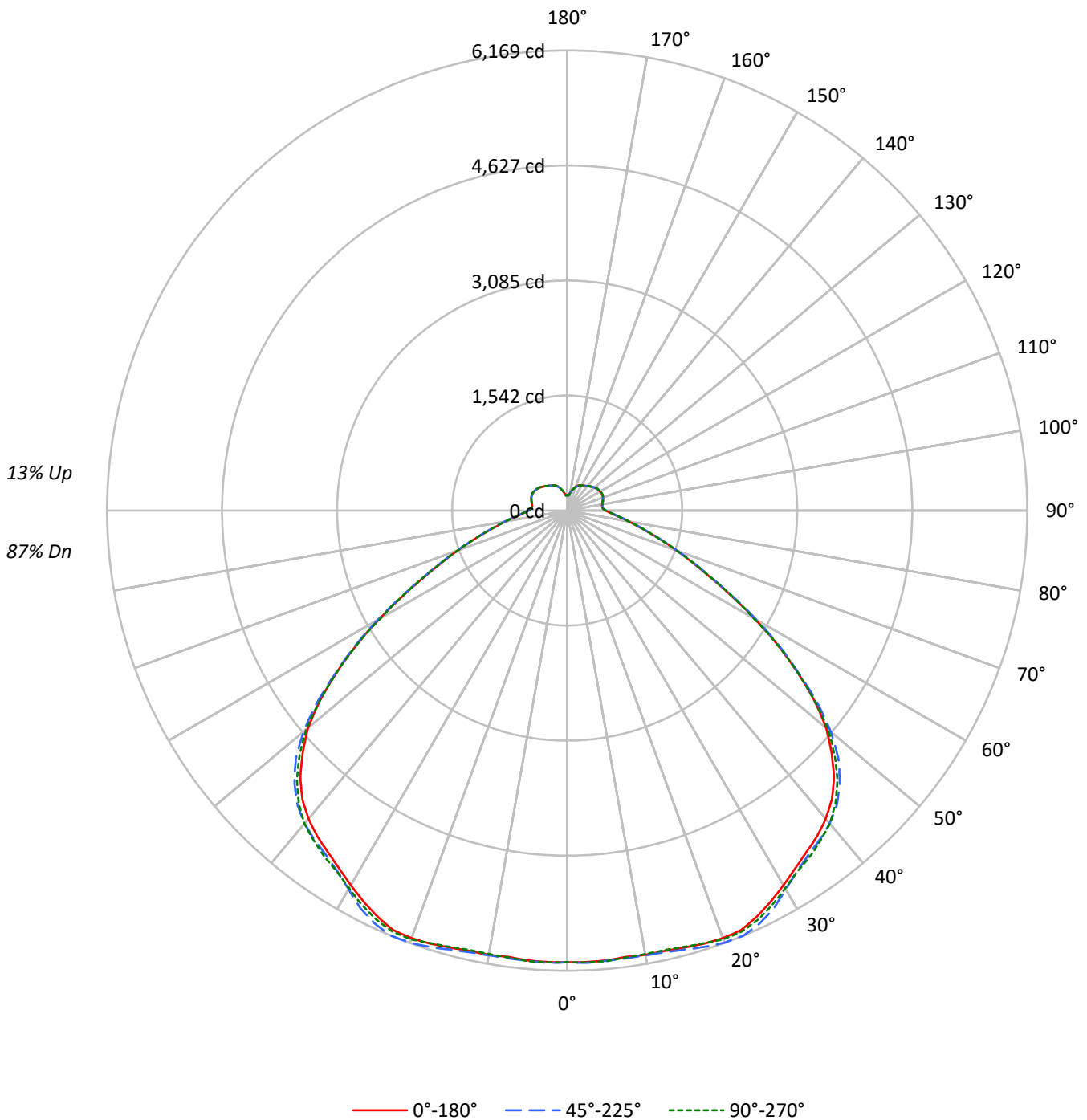
Input Watts (W): 190.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87								
1	106	101	96	92	101	97	93	90	91	87	85	85	82	80	79	77	75	72								
2	96	88	81	75	92	85	79	73	79	74	70	74	70	66	69	66	63	60								
3	87	77	69	62	84	74	67	61	70	63	58	65	60	56	61	57	53	51								
4	80	68	59	53	77	66	58	52	62	55	50	58	52	48	54	50	46	43								
5	73	61	52	45	70	59	50	44	55	48	43	52	46	41	49	44	39	37								
6	68	54	45	39	65	53	44	38	50	42	37	47	41	36	44	39	35	32								
7	62	49	40	34	60	48	40	34	45	38	33	42	36	32	40	35	31	28								
8	58	45	36	30	56	43	35	30	41	34	29	39	33	28	37	31	27	25								
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	28	24	22								
10	51	37	30	24	49	37	29	24	35	28	23	33	27	23	31	26	22	20								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29884	29884	29884
5°	27811	27833	27856
10°	26186	26207	26143
15°	25004	25117	24968
20°	24180	24436	24249
25°	23111	23484	23273
30°	21810	22044	21997
35°	20733	20908	21024
40°	19872	20179	20188
45°	18662	19070	18900
50°	16875	17176	17005
55°	14236	14311	14250
60°	11263	11374	11200
65°	8497	8591	8536
70°	6527	6554	6501
75°	4986	5052	5002
80°	3939	3974	3927
85°	3190	3241	3222



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	577.4	2.5
10°-20°	1724.0	7.5
20°-30°	2789.5	12.2
30°-40°	3545.7	15.5
40°-50°	3930.7	17.1
50°-60°	3367.4	14.7
60°-70°	2153.7	9.4
70°-80°	1228.2	5.4
80°-90°	712.9	3.1
90°-100°	526.9	2.3
100°-110°	524.1	2.3
110°-120°	512.3	2.2
120°-130°	448.6	2.0
130°-140°	352.7	1.5
140°-150°	256.8	1.1
150°-160°	170.3	0.7
160°-170°	85.1	0.4
170°-180°	21.0	0.1
0°-30°	5090.8	22.2
0°-40°	8636.5	37.7
0°-60°	15934.5	69.5
0°-90°	20029.2	87.4
90°-120°	1563.3	6.8
90°-150°	2621.4	11.4
90°-180°	2898.0	12.6
0°-180°	22927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6057	6057	6057	6057	6057	
5°	6053	6052	6058	6052	6063	577
15°	6064	6076	6092	6071	6056	1721
25°	6010	6046	6107	6047	6052	2768
35°	5591	5645	5638	5670	5669	3510
45°	5058	5101	5169	5134	5123	3879
55°	3762	3781	3781	3774	3765	3350
65°	2119	2139	2142	2145	2129	2139
75°	1132	1136	1146	1139	1135	1222
85°	630	639	640	635	637	561
90°	516	517	520	517	516	285
95°	471	471	475	472	472	388
105°	494	495	496	496	496	522
115°	516	517	517	520	520	511
125°	499	500	501	502	504	447
135°	454	455	454	455	456	352
145°	408	408	407	407	408	257
155°	371	371	364	368	371	171
165°	297	297	296	295	296	85
175°	205	205	204	204	205	21
180°	206	206	206	206	206	



TEST NUMBER: P231438

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L840-CD2-U-FRR22-CLCDL22

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6056.9	6056.9	6056.9	6056.9	6056.9
2.5°	6058.1	6068.1	6069.3	6061.9	6061.9
5°	6053.2	6051.9	6058.1	6051.9	6063.1
7.5°	6034.5	6035.7	6054.4	6043.2	6042.0
10°	6048.2	6035.7	6053.2	6038.2	6038.2
12.5°	6046.9	6044.4	6064.3	6046.9	6034.5
15°	6064.3	6075.5	6091.7	6070.6	6055.6
17.5°	6089.2	6102.9	6132.7	6092.9	6080.5
20°	6099.2	6105.4	6163.8	6105.4	6116.6
22.5°	6088.0	6096.7	6168.8	6096.7	6111.6
25°	6009.6	6045.7	6106.6	6046.9	6051.9
27.5°	5910.2	5971.1	6005.9	5977.3	5957.4
30°	5798.2	5879.1	5860.4	5894.0	5848.0
32.5°	5687.6	5765.9	5733.6	5783.3	5738.6
35°	5590.6	5645.3	5637.8	5670.2	5668.9
37.5°	5504.8	5537.1	5562.0	5575.7	5578.1
40°	5392.9	5437.6	5476.2	5467.5	5478.7
42.5°	5253.6	5302.1	5351.8	5325.7	5323.2
45°	5058.4	5100.7	5169.1	5134.2	5123.0
47.5°	4808.4	4888.0	4935.3	4898.0	4865.6
50°	4533.6	4573.4	4614.5	4593.3	4568.5
52.5°	4174.3	4176.8	4226.5	4197.9	4178.0
55°	3761.5	3781.4	3781.4	3773.9	3765.2
57.5°	3343.7	3358.6	3368.5	3357.3	3343.7
60°	2903.5	2919.6	2932.1	2927.1	2887.3
62.5°	2491.9	2508.1	2515.5	2500.6	2504.3
65°	2118.9	2138.7	2142.5	2145.0	2128.8
67.5°	1813.0	1827.9	1836.6	1829.1	1827.9
70°	1560.5	1564.3	1566.8	1571.7	1554.3
72.5°	1331.7	1333.0	1339.2	1340.4	1330.5
75°	1131.5	1136.5	1146.5	1139.0	1135.3
77.5°	966.2	973.6	978.6	981.1	976.1
80°	839.3	840.6	846.8	841.8	836.8
82.5°	728.7	728.7	732.4	732.4	729.9
85°	630.4	639.1	640.4	635.4	636.7
87.5°	564.5	568.3	569.5	567.0	565.8
90°	516.0	517.3	519.8	517.3	516.0
92.5°	484.9	487.4	488.7	487.4	488.7
95°	471.3	471.3	475.0	472.5	472.5
97.5°	471.3	471.3	475.0	473.8	472.5
100°	477.5	478.7	480.0	480.0	480.0
102.5°	484.9	486.2	487.4	487.4	487.4
105°	493.7	494.9	496.1	496.1	496.1
107.5°	502.4	503.6	504.8	504.8	504.8
110°	511.1	509.8	512.3	512.3	513.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	514.8	516.0	516.0	517.3	518.5
115°	516.0	517.3	517.3	519.8	519.8
117.5°	516.0	516.0	517.3	518.5	519.8
120°	511.1	512.3	513.5	514.8	516.0
122.5°	507.3	507.3	508.6	509.8	511.1
125°	498.6	499.9	501.1	502.4	503.6
127.5°	489.9	489.9	491.2	492.4	493.7
130°	480.0	480.0	481.2	482.5	483.7
132.5°	466.3	467.5	467.5	468.8	470.0
135°	453.9	455.1	453.9	455.1	456.3
137.5°	441.4	441.4	440.2	441.4	442.7
140°	427.7	429.0	427.7	429.0	429.0
142.5°	416.6	419.0	417.8	417.8	419.0
145°	407.9	407.9	406.6	406.6	407.9
147.5°	397.9	399.1	397.9	397.9	397.9
150°	388.0	389.2	386.7	388.0	388.0
152.5°	380.5	381.7	375.5	380.5	380.5
155°	370.6	370.6	364.3	368.1	370.6
157.5°	356.9	355.6	351.9	355.6	354.4
160°	339.5	340.7	337.0	338.2	337.0
162.5°	317.1	319.6	318.3	318.3	317.1
165°	297.2	297.2	295.9	294.7	295.9
167.5°	274.8	274.8	273.6	274.8	273.6
170°	247.4	249.9	248.7	249.9	247.4
172.5°	220.1	218.8	218.8	218.8	218.8
175°	205.2	205.2	203.9	203.9	205.2
177.5°	203.9	203.9	205.2	202.7	202.7
180°	206.4	206.4	206.4	206.4	206.4

(END OF REPORT)