

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: P231447

Luminaire Tested: **SSLED-LD5-9-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: P231447
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-LD5-9-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: 8687.0 lumens
Efficiency: N/A
Efficacy: 135.5 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

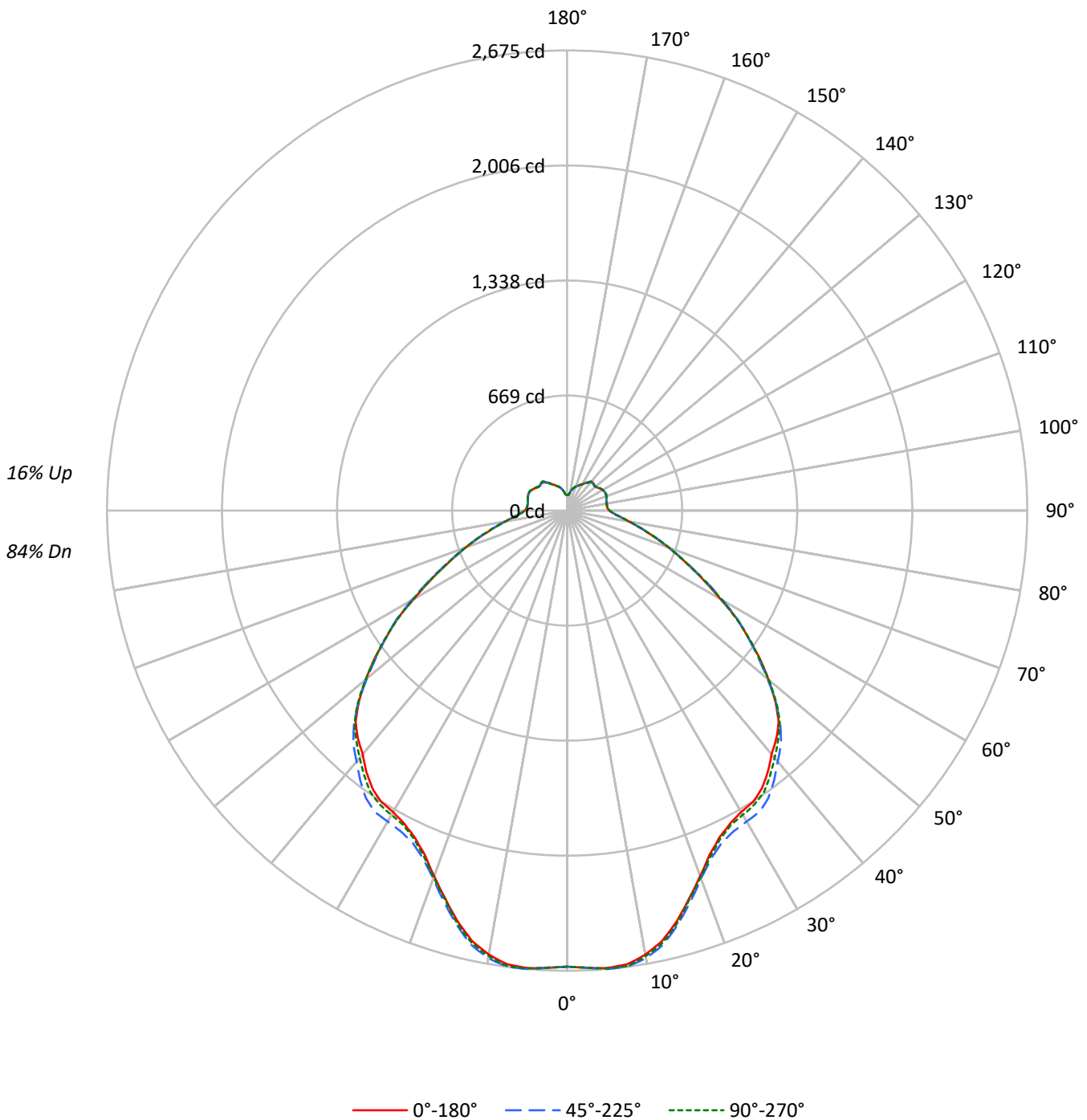
Input Watts (W): 64.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231447

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L840-CD1-U-FRR22-FRCDL22

Luminous Intensity Polar Plot





TEST NUMBER: P231447

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L840-CD1-U-FRR22-FRCDL22

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°	10808	10808	10808
5°	10300	10323	10311
10°	9668	9746	9703
15°	8787	8859	8826
20°	7832	7880	7855
25°	7123	7233	7157
30°	6801	7015	6865
35°	6608	6830	6684
40°	6219	6406	6311
45°	5918	5963	5950
50°	5304	5276	5312
55°	4579	4581	4599
60°	3816	3863	3837
65°	3122	3150	3134
70°	2568	2584	2586
75°	2092	2119	2119
80°	1729	1743	1745
85°	1495	1508	1493



TEST NUMBER: P231447

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L840-CD1-U-FRR22-FRCDL22

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.0	2.9
10°-20°	694.7	8.0
20°-30°	987.8	11.4
30°-40°	1247.9	14.4
40°-50°	1337.2	15.4
50°-60°	1146.9	13.2
60°-70°	811.3	9.3
70°-80°	515.0	5.9
80°-90°	320.9	3.7
90°-100°	258.0	3.0
100°-110°	250.6	2.9
110°-120°	241.8	2.8
120°-130°	204.8	2.4
130°-140°	168.1	1.9
140°-150°	124.7	1.4
150°-160°	75.6	0.9
160°-170°	38.2	0.4
170°-180°	9.5	0.1
0°-30°	1936.4	22.3
0°-40°	3184.3	36.7
0°-60°	5668.4	65.3
0°-90°	7315.7	84.2
90°-120°	750.3	8.6
90°-150°	1248.0	14.4
90°-180°	1371.0	15.8
0°-180°	8687.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2651	2651	2651	2651	2651	
5°	2669	2673	2675	2674	2672	253
15°	2469	2472	2489	2483	2480	691
25°	2096	2127	2128	2141	2106	975
35°	1973	1980	2039	1996	1996	1228
45°	1739	1743	1752	1756	1748	1327
55°	1283	1282	1284	1277	1289	1149
65°	806	810	813	811	808	805
75°	477	482	483	483	483	511
85°	286	285	288	286	285	250
90°	246	247	248	247	246	136
95°	233	234	235	235	234	191
105°	236	236	236	236	237	250
115°	244	245	245	246	247	241
125°	228	228	229	229	230	204
135°	217	217	217	218	219	168
145°	197	198	198	197	196	125
155°	162	162	162	161	162	75
165°	134	134	133	134	134	38
175°	93	93	92	93	93	10
180°	91	91	91	91	91	



TEST NUMBER: P231447

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L840-CD1-U-FRR22-FRCDL22

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2650.6	2650.6	2650.6	2650.6	2650.6
2.5°	2661.6	2661.6	2659.7	2661.1	2659.7
5°	2669.2	2672.6	2675.4	2674.0	2672.1
7.5°	2661.1	2664.4	2674.0	2671.6	2671.6
10°	2621.0	2627.2	2642.0	2637.7	2630.5
12.5°	2560.3	2570.8	2584.2	2576.0	2572.7
15°	2469.0	2472.3	2489.1	2482.9	2480.0
17.5°	2362.0	2362.0	2383.0	2382.0	2367.7
20°	2261.1	2268.3	2275.0	2281.7	2267.8
22.5°	2164.1	2189.0	2188.5	2200.9	2175.6
25°	2095.8	2127.3	2128.3	2141.2	2105.8
27.5°	2050.9	2086.3	2099.6	2098.7	2060.4
30°	2023.7	2044.2	2087.2	2060.9	2042.8
32.5°	2009.3	2010.3	2078.1	2026.5	2026.5
35°	1973.0	1980.2	2039.4	1995.9	1995.9
37.5°	1916.1	1943.9	1975.9	1958.7	1938.6
40°	1849.2	1895.1	1904.7	1901.8	1876.5
42.5°	1799.5	1825.4	1839.7	1836.3	1814.8
45°	1738.9	1742.7	1752.2	1756.1	1748.4
47.5°	1642.3	1640.9	1645.2	1647.6	1648.6
50°	1528.1	1517.1	1520.0	1519.5	1530.5
52.5°	1411.1	1397.2	1397.2	1394.8	1404.4
55°	1283.0	1282.5	1283.5	1276.8	1288.7
57.5°	1167.4	1171.2	1174.1	1165.9	1163.1
60°	1030.7	1043.6	1043.6	1040.3	1036.4
62.5°	912.2	921.8	927.0	919.4	918.9
65°	805.6	810.4	812.8	810.9	808.5
67.5°	708.2	713.9	716.8	712.5	712.9
70°	626.4	628.4	630.3	634.6	630.7
72.5°	548.1	549.5	553.3	552.4	552.4
75°	476.9	482.1	483.1	483.1	483.1
77.5°	417.6	420.5	420.0	419.1	418.1
80°	363.6	366.5	366.5	366.5	367.0
82.5°	321.6	321.1	322.1	323.0	323.0
85°	285.7	285.3	288.1	285.7	285.3
87.5°	260.9	262.3	263.3	262.8	261.9
90°	246.1	246.6	247.5	247.0	246.1
92.5°	237.0	238.0	238.9	238.9	238.4
95°	233.2	233.7	234.6	234.6	234.1
97.5°	232.2	232.7	233.7	233.7	233.2
100°	232.7	233.2	233.7	233.7	234.1
102.5°	233.2	233.7	234.1	234.6	234.6
105°	235.6	235.6	236.1	236.5	237.0
107.5°	238.4	238.9	239.4	239.9	239.9
110°	241.8	242.3	242.3	243.2	243.2



TEST NUMBER: P231447

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L840-CD1-U-FRR22-FRCDL22

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	244.2	244.7	244.7	245.6	246.1
115°	244.2	244.7	245.1	246.1	246.6
117.5°	242.3	242.3	242.7	243.7	244.7
120°	238.0	238.0	238.9	239.4	240.4
122.5°	232.7	233.2	234.1	234.6	235.1
125°	227.5	227.9	228.9	228.9	229.8
127.5°	220.3	221.7	222.7	222.7	223.2
130°	214.6	216.0	216.9	217.4	216.9
132.5°	213.1	214.6	216.0	215.0	214.1
135°	216.9	216.9	216.9	217.9	218.9
137.5°	220.8	219.8	216.5	220.3	221.7
140°	220.8	217.4	215.0	216.9	220.8
142.5°	209.8	208.8	204.0	207.9	209.3
145°	197.3	198.3	197.8	196.9	195.9
147.5°	186.8	188.7	190.2	186.4	186.4
150°	175.4	179.7	179.7	178.2	176.8
152.5°	169.2	170.1	170.1	169.2	169.6
155°	161.5	162.0	162.0	161.0	162.5
157.5°	153.9	154.8	154.8	154.8	154.3
160°	148.6	149.1	148.6	148.6	148.1
162.5°	141.9	141.4	141.4	141.4	141.9
165°	134.3	133.8	133.3	133.8	134.3
167.5°	125.2	125.2	124.7	124.7	124.7
170°	114.2	114.7	114.2	114.2	113.7
172.5°	99.9	99.4	99.9	99.9	100.3
175°	93.2	92.7	92.2	92.7	92.7
177.5°	90.8	91.3	91.3	90.8	90.3
180°	90.8	90.8	90.8	90.8	90.8

(END OF REPORT)