

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: P231448

Luminaire Tested: **SSLED-LD5-9-W-UNV-L850-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: P231448
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-L850-CD1-U-FRR22-FRCDL22
Description: STEELER WHITE REFRACTOR LENS AND CIRCULAR DROP
Light Source: (240) 5000 CCT, 80 CRI LEDS
Ballast/Driver: (1) ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8962.0 lumens
Efficiency: N/A
Efficacy: 139.8 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

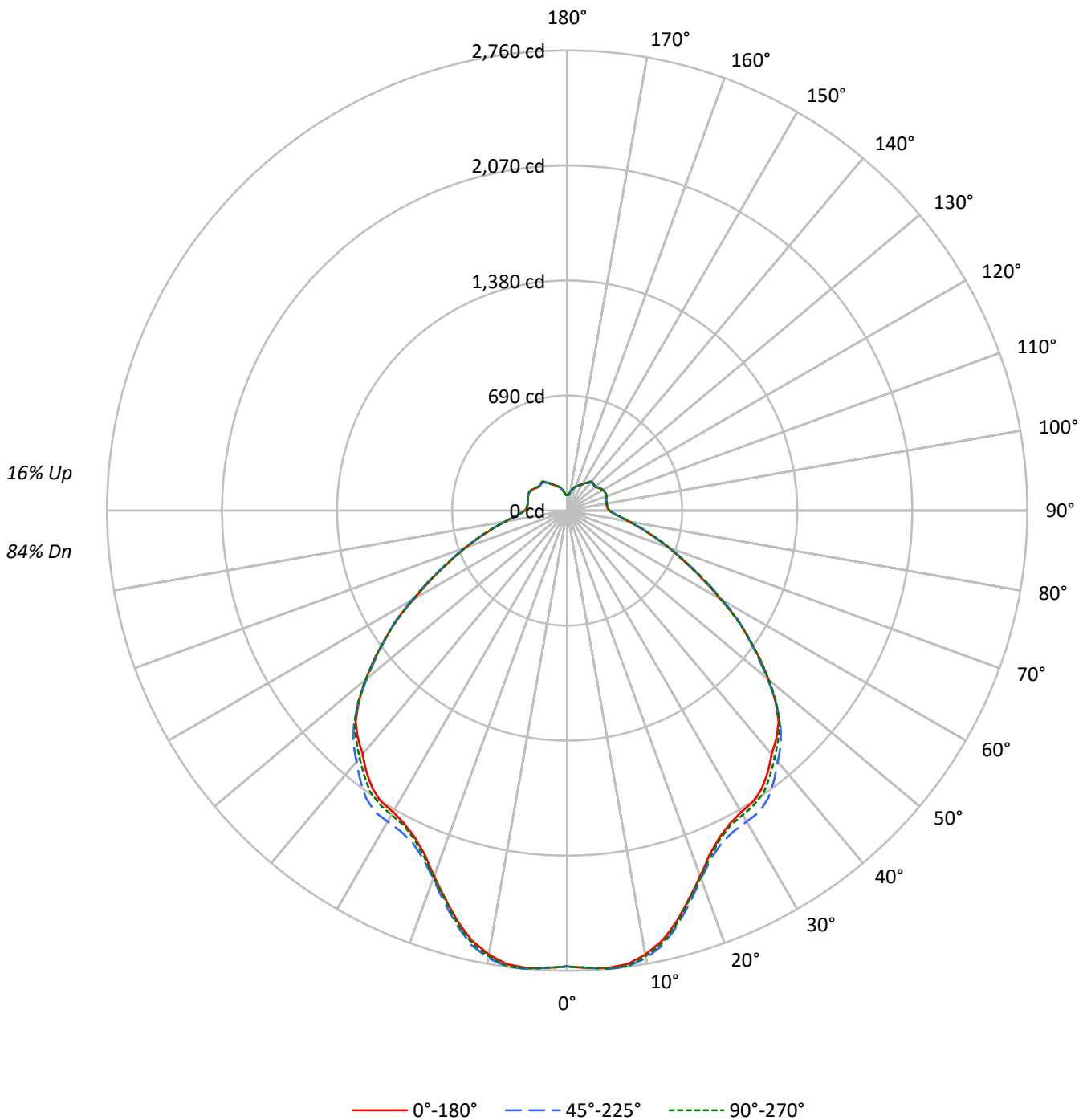
Input Watts (W): 64.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231448

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L850-CD1-U-FRR22-FRCDL22

Luminous Intensity Polar Plot





TEST NUMBER: P231448

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L850-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	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°	11150	11150	11150
5°	10626	10650	10637
10°	9974	10054	10010
15°	9066	9139	9106
20°	8080	8129	8104
25°	7348	7462	7383
30°	7016	7237	7082
35°	6817	7047	6896
40°	6416	6608	6510
45°	6105	6152	6138
50°	5472	5443	5480
55°	4724	4726	4745
60°	3936	3986	3958
65°	3221	3250	3233
70°	2650	2666	2668
75°	2158	2186	2186
80°	1783	1798	1800
85°	1543	1556	1540



TEST NUMBER: P231448

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L850-CD1-U-FRR22-FRCDL22

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.0	2.9
10°-20°	716.7	8.0
20°-30°	1019.0	11.4
30°-40°	1287.4	14.4
40°-50°	1379.6	15.4
50°-60°	1183.2	13.2
60°-70°	837.0	9.3
70°-80°	531.3	5.9
80°-90°	331.1	3.7
90°-100°	266.2	3.0
100°-110°	258.5	2.9
110°-120°	249.4	2.8
120°-130°	211.3	2.4
130°-140°	173.5	1.9
140°-150°	128.6	1.4
150°-160°	78.0	0.9
160°-170°	39.4	0.4
170°-180°	9.8	0.1
0°-30°	1997.7	22.3
0°-40°	3285.1	36.7
0°-60°	5847.9	65.3
0°-90°	7547.3	84.2
90°-120°	774.1	8.6
90°-150°	1287.5	14.4
90°-180°	1415.0	15.8
0°-180°	8962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2734	2734	2734	2734	2734	
5°	2754	2757	2760	2759	2757	261
15°	2547	2551	2568	2562	2558	713
25°	2162	2195	2196	2209	2172	1006
35°	2036	2043	2104	2059	2059	1267
45°	1794	1798	1808	1812	1804	1369
55°	1324	1323	1324	1317	1330	1185
65°	831	836	838	837	834	831
75°	492	497	498	498	498	528
85°	295	294	297	295	294	258
90°	254	254	255	255	254	140
95°	241	241	242	242	242	197
105°	243	243	244	244	244	258
115°	252	252	253	254	254	248
125°	235	235	236	236	237	210
135°	224	224	224	225	226	173
145°	204	205	204	203	202	129
155°	167	167	167	166	168	78
165°	138	138	138	138	138	39
175°	96	96	95	96	96	10
180°	94	94	94	94	94	



TEST NUMBER: P231448

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L850-CD1-U-FRR22-FRCDL22

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2734.5	2734.5	2734.5	2734.5	2734.5
2.5°	2745.8	2745.8	2743.9	2745.3	2743.9
5°	2753.7	2757.2	2760.1	2758.6	2756.7
7.5°	2745.3	2748.8	2758.6	2756.2	2756.2
10°	2703.9	2710.3	2725.6	2721.2	2713.8
12.5°	2641.3	2652.2	2666.0	2657.6	2654.1
15°	2547.2	2550.6	2567.9	2561.5	2558.5
17.5°	2436.7	2436.7	2458.4	2457.4	2442.7
20°	2332.7	2340.1	2347.0	2353.9	2339.6
22.5°	2232.7	2258.3	2257.8	2270.6	2244.5
25°	2162.2	2194.7	2195.7	2209.0	2172.5
27.5°	2115.8	2152.3	2166.1	2165.1	2125.7
30°	2087.7	2108.9	2153.3	2126.2	2107.4
32.5°	2072.9	2073.9	2143.9	2090.7	2090.7
35°	2035.5	2042.9	2104.0	2059.1	2059.1
37.5°	1976.8	2005.4	2038.4	2020.7	2000.0
40°	1907.8	1955.1	1965.0	1962.0	1935.9
42.5°	1856.5	1883.1	1897.9	1894.5	1872.3
45°	1793.9	1797.9	1807.7	1811.7	1803.8
47.5°	1694.3	1692.9	1697.3	1699.8	1700.7
50°	1576.5	1565.2	1568.1	1567.6	1579.0
52.5°	1455.7	1441.4	1441.4	1439.0	1448.8
55°	1323.6	1323.1	1324.1	1317.2	1329.5
57.5°	1204.3	1208.3	1211.2	1202.8	1199.9
60°	1063.3	1076.6	1076.6	1073.2	1069.2
62.5°	941.1	950.9	956.4	948.5	948.0
65°	831.1	836.1	838.5	836.6	834.1
67.5°	730.6	736.5	739.5	735.0	735.5
70°	646.3	648.3	650.2	654.7	650.7
72.5°	565.4	566.9	570.9	569.9	569.9
75°	492.0	497.4	498.4	498.4	498.4
77.5°	430.9	433.8	433.3	432.3	431.3
80°	375.1	378.1	378.1	378.1	378.6
82.5°	331.8	331.3	332.3	333.2	333.2
85°	294.8	294.3	297.3	294.8	294.3
87.5°	269.2	270.6	271.6	271.1	270.1
90°	253.9	254.4	255.4	254.9	253.9
92.5°	244.5	245.5	246.5	246.5	246.0
95°	240.6	241.1	242.0	242.0	241.6
97.5°	239.6	240.1	241.1	241.1	240.6
100°	240.1	240.6	241.1	241.1	241.6
102.5°	240.6	241.1	241.6	242.0	242.0
105°	243.0	243.0	243.5	244.0	244.5
107.5°	246.0	246.5	247.0	247.5	247.5
110°	249.4	249.9	249.9	250.9	250.9



TEST NUMBER: P231448

CATALOG NUMBER: SSLED-LD5-9-W-UNV-L850-CD1-U-FRR22-FRCDL22

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	251.9	252.4	252.4	253.4	253.9
115°	251.9	252.4	252.9	253.9	254.4
117.5°	249.9	249.9	250.4	251.4	252.4
120°	245.5	245.5	246.5	247.0	248.0
122.5°	240.1	240.6	241.6	242.0	242.5
125°	234.7	235.1	236.1	236.1	237.1
127.5°	227.3	228.7	229.7	229.7	230.2
130°	221.3	222.8	223.8	224.3	223.8
132.5°	219.9	221.3	222.8	221.8	220.8
135°	223.8	223.8	223.8	224.8	225.8
137.5°	227.8	226.8	223.3	227.3	228.7
140°	227.8	224.3	221.8	223.8	227.8
142.5°	216.4	215.4	210.5	214.4	215.9
145°	203.6	204.6	204.1	203.1	202.1
147.5°	192.8	194.7	196.2	192.3	192.3
150°	180.9	185.4	185.4	183.9	182.4
152.5°	174.5	175.5	175.5	174.5	175.0
155°	166.6	167.1	167.1	166.1	167.6
157.5°	158.7	159.7	159.7	159.7	159.2
160°	153.3	153.8	153.3	153.3	152.8
162.5°	146.4	145.9	145.9	145.9	146.4
165°	138.5	138.0	137.5	138.0	138.5
167.5°	129.2	129.2	128.7	128.7	128.7
170°	117.8	118.3	117.8	117.8	117.3
172.5°	103.0	102.5	103.0	103.0	103.5
175°	96.1	95.6	95.1	95.6	95.6
177.5°	93.7	94.2	94.2	93.7	93.2
180°	93.7	93.7	93.7	93.7	93.7

(END OF REPORT)