

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: P231520

Luminaire Tested: **SSLED-LD5-18-W-UNV-L850-CD1-U-CLR22-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: P231520  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-7)  
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-L850-CD1-U-CLR22-FRCDL22  
Description: STEELER CLEAR 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: 16915.0 lumens  
Efficiency: N/A  
Efficacy: 126.4 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.32 / 1.45  
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')  
CIE Type: Semi-Direct

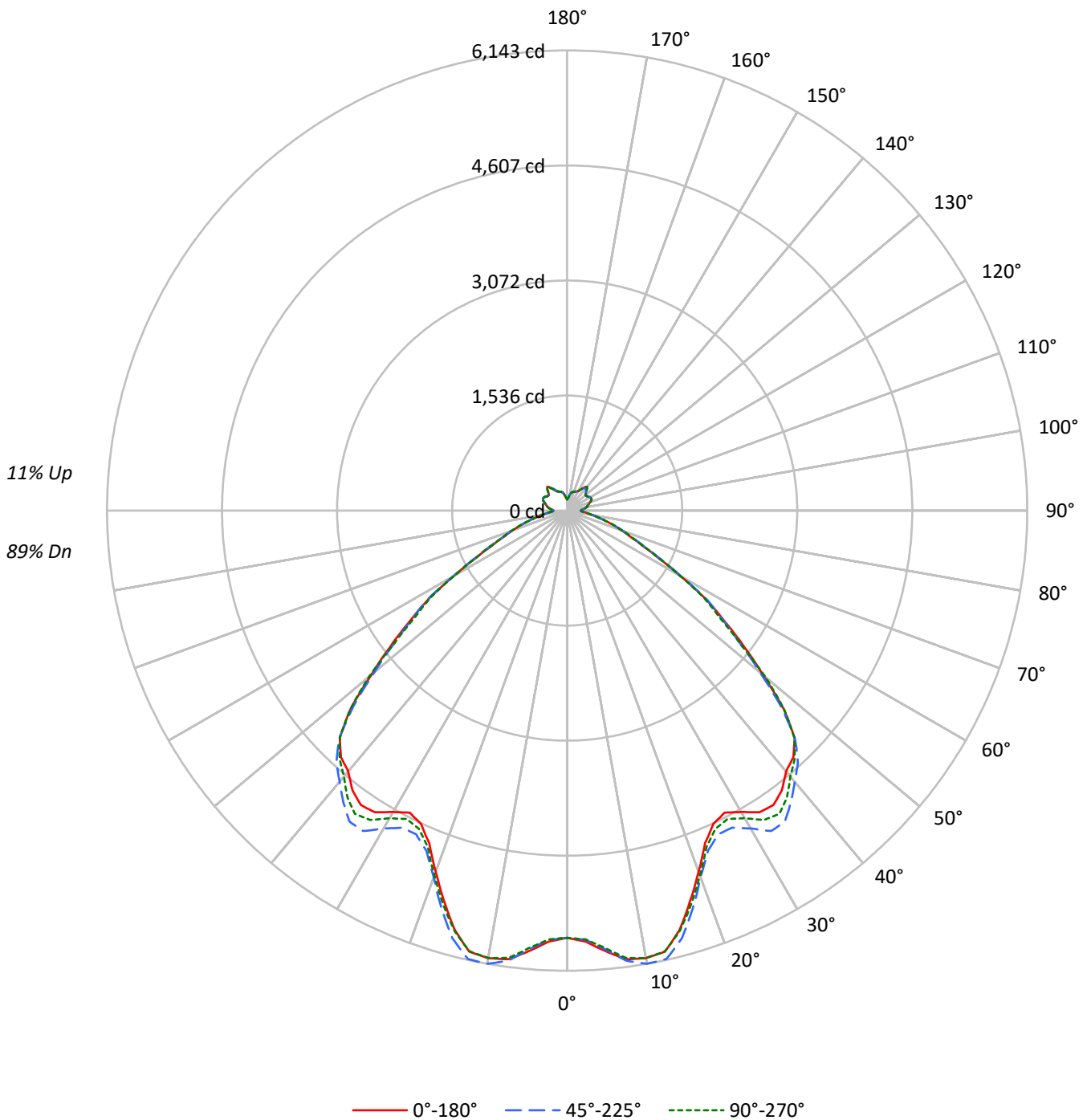
Input Watts (W): 133.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	107	103	99	95	103	99	96	93	93	90	88	87	85	83	82	80	79	76
2	98	91	85	79	95	88	82	78	83	78	74	78	74	71	73	70	68	65
3	90	80	73	67	87	78	71	66	73	68	63	69	65	61	65	62	58	56
4	83	72	63	57	80	70	62	56	66	59	54	62	57	52	59	54	51	48
5	76	64	56	50	73	62	55	49	59	52	47	56	50	46	53	48	44	42
6	70	58	49	43	68	56	48	43	53	47	42	51	45	40	48	43	39	37
7	65	53	44	38	63	51	43	38	49	42	37	46	40	36	44	39	35	33
8	61	48	40	34	59	47	39	34	45	38	33	42	36	32	40	35	31	29
9	57	44	36	31	55	43	35	30	41	34	30	39	33	29	37	32	28	26
10	53	40	33	28	51	40	32	27	38	31	27	36	30	26	35	29	26	24

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

	0°	45°	90°
0°	23253	23253	23253
5°	22785	22692	22626
10°	22378	22661	22371
15°	20631	21043	20671
20°	17773	18032	17952
25°	15688	16206	15923
30°	15611	16466	15936
35°	16076	16974	16547
40°	15290	15895	15586
45°	14615	14641	14595
50°	11849	11683	11972
55°	9112	9010	8843
60°	6475	6517	6422
65°	4297	4415	4349
70°	3183	3218	3230
75°	2314	2318	2318
80°	1652	1629	1643
85°	1153	1157	1157



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	569.6	3.4
10°-20°	1622.3	9.6
20°-30°	2235.5	13.2
30°-40°	3040.9	18.0
40°-50°	3241.5	19.2
50°-60°	2286.4	13.5
60°-70°	1167.0	6.9
70°-80°	571.6	3.4
80°-90°	259.2	1.5
90°-100°	239.3	1.4
100°-110°	307.5	1.8
110°-120°	347.8	2.1
120°-130°	299.4	1.8
130°-140°	278.6	1.6
140°-150°	227.0	1.3
150°-160°	132.2	0.8
160°-170°	71.3	0.4
170°-180°	17.8	0.1
0°-30°	4427.4	26.2
0°-40°	7468.3	44.2
0°-60°	12996.1	76.8
0°-90°	14994.0	88.6
90°-120°	894.6	5.3
90°-150°	1699.7	10.0
90°-180°	1921.0	11.4
0°-180°	16915.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5703	5703	5703	5703	5703	
5°	5905	5892	5881	5862	5864	570
15°	5797	5847	5912	5849	5808	1608
25°	4616	4777	4768	4826	4685	2176
35°	4800	4811	5068	4882	4941	2963
45°	4295	4278	4302	4318	4289	3215
55°	2553	2577	2524	2534	2478	2294
65°	1109	1121	1139	1128	1122	1151
75°	528	526	528	525	528	571
85°	220	221	221	220	221	208
90°	182	183	182	184	184	102
95°	217	216	215	218	219	187
105°	292	289	285	286	288	308
115°	357	356	355	356	360	348
125°	329	328	330	330	332	299
135°	359	358	359	365	366	280
145°	365	360	366	360	360	229
155°	279	280	282	280	282	130
165°	254	252	252	250	254	71
175°	172	171	169	171	171	18
180°	148	148	148	148	148	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5702.8	5702.8	5702.8	5702.8	5702.8
2.5°	5760.3	5750.7	5735.4	5731.6	5728.7
5°	5904.8	5892.4	5880.9	5861.8	5863.7
7.5°	6040.8	6048.4	6061.8	6038.9	6023.5
10°	6066.6	6095.3	6143.2	6104.0	6064.7
12.5°	6032.2	6078.1	6128.8	6071.4	6025.5
15°	5796.7	5847.4	5912.5	5849.3	5808.1
17.5°	5463.5	5506.6	5574.6	5503.7	5509.5
20°	5131.3	5178.2	5206.0	5221.3	5183.0
22.5°	4808.7	4932.2	4912.1	4971.4	4859.4
25°	4616.3	4777.1	4768.5	4825.9	4685.2
27.5°	4546.4	4734.0	4770.4	4773.3	4640.2
30°	4645.0	4719.7	4899.6	4773.3	4741.7
32.5°	4776.1	4749.3	5072.0	4826.9	4896.8
35°	4800.1	4810.6	5068.1	4882.4	4940.8
37.5°	4706.3	4823.0	4908.2	4897.7	4821.1
40°	4546.4	4734.0	4726.4	4780.9	4634.5
42.5°	4467.9	4559.8	4559.8	4599.0	4496.6
45°	4294.6	4278.3	4302.3	4318.5	4288.9
47.5°	3923.2	3892.5	3877.2	3933.7	3930.8
50°	3413.9	3393.7	3366.0	3433.0	3449.3
52.5°	2969.6	2927.5	2901.7	2920.8	2902.6
55°	2553.2	2577.1	2524.5	2534.1	2477.6
57.5°	2184.6	2238.2	2214.3	2206.7	2164.5
60°	1749.0	1786.4	1760.5	1772.0	1734.7
62.5°	1375.7	1401.5	1413.0	1408.2	1389.1
65°	1108.6	1121.0	1139.2	1127.7	1122.0
67.5°	915.2	926.7	931.5	928.6	932.4
70°	776.4	779.3	785.0	776.4	787.9
72.5°	650.0	655.8	655.8	656.7	662.5
75°	527.5	525.6	528.4	524.6	528.4
77.5°	424.1	424.1	422.2	420.3	426.0
80°	347.5	343.7	342.7	341.8	345.6
82.5°	276.7	277.6	277.6	276.7	275.7
85°	220.2	221.1	221.1	220.2	221.1
87.5°	189.6	189.6	190.5	190.5	189.6
90°	181.9	182.9	181.9	183.8	183.8
92.5°	194.3	194.3	195.3	197.2	196.3
95°	217.3	216.4	215.4	218.3	219.2
97.5°	239.3	238.4	240.3	242.2	244.1
100°	264.2	264.2	266.1	267.1	269.0
102.5°	274.8	274.8	273.8	276.7	278.6
105°	292.0	289.1	285.3	286.2	288.2
107.5°	305.4	304.4	303.5	305.4	306.3
110°	325.5	324.5	324.5	324.5	326.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	345.6	345.6	344.6	345.6	347.5
115°	357.1	356.1	355.2	356.1	360.0
117.5°	360.0	360.0	358.0	360.9	363.8
120°	355.2	354.2	354.2	356.1	359.0
122.5°	342.7	341.8	341.8	343.7	346.6
125°	329.3	328.4	330.3	330.3	332.2
127.5°	319.7	320.7	322.6	320.7	321.7
130°	321.7	322.6	326.5	323.6	323.6
132.5°	332.2	333.2	339.9	337.9	337.9
135°	359.0	358.0	359.0	364.7	365.7
137.5°	389.6	382.0	371.4	390.6	395.4
140°	415.5	394.4	390.6	399.2	413.6
142.5°	396.3	384.8	375.3	386.8	395.4
145°	364.7	360.0	365.7	360.0	360.0
147.5°	328.4	335.1	347.5	330.3	329.3
150°	300.6	314.0	318.8	309.2	302.5
152.5°	288.2	293.9	296.8	292.0	292.0
155°	278.6	279.5	282.4	279.5	281.5
157.5°	271.9	274.8	274.8	274.8	273.8
160°	266.1	270.0	269.0	269.0	267.1
162.5°	262.3	264.2	263.3	263.3	263.3
165°	253.7	251.8	251.8	249.9	253.7
167.5°	239.3	236.5	236.5	235.5	238.4
170°	221.1	221.1	220.2	220.2	218.3
172.5°	191.5	190.5	189.6	189.6	189.6
175°	172.3	171.4	169.4	171.4	171.4
177.5°	158.0	158.0	158.9	157.0	157.0
180°	148.4	148.4	148.4	148.4	148.4

(END OF REPORT)