

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: P231477

Luminaire Tested: **SSLED-LD5-18-W-UNV-L840-CD1-U-CLR22**

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: P231477  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-5)  
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-L840-CD1-U-CLR22  
Description: STEELER CLEAR REFRACTOR LENS  
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: 17501.0 lumens  
Efficiency: N/A  
Efficacy: 130.8 lumens/watt  
Spacing Criteria (0/90/45): 1.47 / 1.48 / 1.49  
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')  
CIE Type: Direct

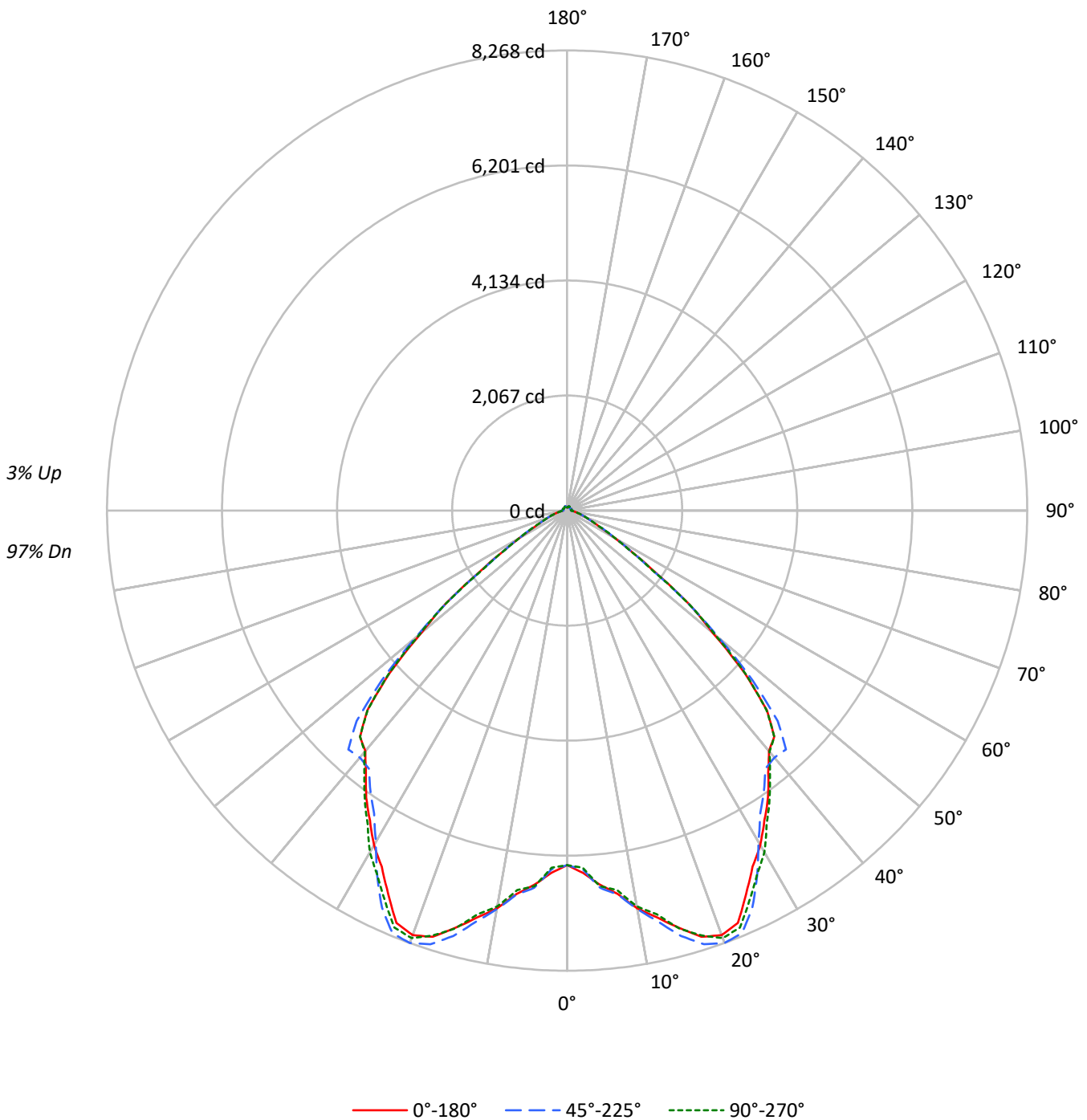
Input Watts (W): 133.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97
1	111	107	103	100	108	104	101	99	100	97	95	95	94	92	92	90	89	86
2	103	96	91	86	100	94	89	85	90	86	82	87	83	80	83	81	78	76
3	95	86	80	74	93	85	78	73	81	76	72	78	74	70	76	72	69	67
4	88	78	70	65	86	76	70	64	74	68	63	71	66	62	69	65	61	59
5	82	71	63	57	80	69	62	57	67	61	56	65	59	55	63	58	54	52
6	76	64	56	51	74	63	56	50	61	55	50	59	54	49	58	53	49	47
7	71	59	51	45	69	58	50	45	56	49	45	54	49	44	53	48	44	42
8	66	54	46	41	64	53	46	41	52	45	40	50	44	40	49	43	39	38
9	62	50	42	37	60	49	42	37	48	41	36	46	40	36	45	40	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	25984	25984	25984
5°	26029	26254	26143
10°	26762	26823	26631
15°	27624	28163	27654
20°	28115	28639	28308
25°	25842	26760	26315
30°	23322	23094	23824
35°	21078	20646	21236
40°	18965	19487	19031
45°	17271	18197	17240
50°	11859	12362	12043
55°	6846	6614	6681
60°	3696	3762	3703
65°	2126	2215	2158
70°	1453	1491	1491
75°	1030	1046	1034
80°	768	776	763
85°	549	554	544



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	657.4	3.8
10°-20°	2228.8	12.7
20°-30°	3575.0	20.4
30°-40°	3931.1	22.5
40°-50°	3825.4	21.9
50°-60°	1834.1	10.5
60°-70°	599.7	3.4
70°-80°	261.4	1.5
80°-90°	120.7	0.7
90°-100°	82.2	0.5
100°-110°	83.5	0.5
110°-120°	75.5	0.4
120°-130°	60.2	0.3
130°-140°	53.1	0.3
140°-150°	48.8	0.3
150°-160°	37.9	0.2
160°-170°	20.6	0.1
170°-180°	5.6	0.0
0°-30°	6461.1	36.9
0°-40°	10392.2	59.4
0°-60°	16051.8	91.7
0°-90°	17033.6	97.3
90°-120°	241.2	1.4
90°-150°	403.3	2.3
90°-180°	467.0	2.7
0°-180°	17501.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6372	6372	6372	6372	6372	
5°	6746	6741	6804	6778	6775	658
15°	7762	7848	7913	7821	7770	2208
25°	7604	7869	7874	7959	7743	3495
35°	6294	6158	6165	6219	6341	3929
45°	5075	5011	5347	5017	5066	3739
55°	1918	1927	1853	1911	1872	1827
65°	548	559	572	569	557	587
75°	235	237	238	237	236	259
85°	105	105	106	106	104	98
90°	73	75	75	76	74	41
95°	70	69	70	72	72	60
105°	85	78	78	74	81	84
115°	73	78	77	77	75	75
125°	64	64	64	65	67	60
135°	69	68	66	68	70	54
145°	78	77	78	78	80	49
155°	83	83	83	83	82	38
165°	73	72	72	72	70	21
175°	58	58	57	57	58	6
180°	58	58	58	58	58	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6372.5	6372.5	6372.5	6372.5	6372.5
2.5°	6514.5	6481.1	6449.5	6426.3	6420.7
5°	6745.5	6740.9	6804.0	6778.0	6775.2
7.5°	6945.1	6957.1	6954.3	6920.9	6877.3
10°	7255.0	7257.8	7271.7	7253.1	7219.7
12.5°	7490.7	7597.4	7565.0	7531.5	7427.6
15°	7761.7	7848.0	7912.9	7821.1	7770.0
17.5°	8028.9	8120.8	8169.1	8145.9	8003.0
20°	8117.1	8260.0	8268.4	8290.6	8172.8
22.5°	8017.8	8181.1	8211.8	8254.4	8108.8
25°	7603.9	7869.3	7874.0	7959.3	7743.1
27.5°	7214.2	7437.8	7390.5	7549.2	7384.9
30°	6939.5	6978.5	6871.7	7072.2	7088.9
32.5°	6598.0	6501.5	6455.1	6549.7	6673.2
35°	6293.6	6158.1	6164.6	6219.4	6340.9
37.5°	5937.3	6031.9	5848.2	6108.0	5985.5
40°	5639.4	5822.2	5794.4	5866.7	5658.9
42.5°	5507.6	5490.0	5820.3	5501.1	5508.5
45°	5075.2	5011.1	5347.1	5016.7	5065.9
47.5°	4327.2	4536.0	4523.9	4598.2	4354.1
50°	3416.8	3630.3	3561.6	3719.4	3469.7
52.5°	2758.9	2667.0	2740.3	2695.8	2758.9
55°	1918.1	1927.4	1853.2	1910.7	1871.8
57.5°	1360.4	1391.1	1364.1	1362.3	1348.4
60°	998.5	1002.2	1016.1	1013.4	1000.4
62.5°	730.3	737.7	753.5	752.6	744.2
65°	548.4	558.6	571.6	568.9	556.8
67.5°	427.8	438.9	441.7	443.6	445.4
70°	354.5	358.2	363.8	363.8	363.8
72.5°	295.1	299.7	300.7	301.6	299.7
75°	234.8	236.6	238.5	236.6	235.7
77.5°	193.9	193.9	193.0	192.1	193.0
80°	161.5	162.4	163.3	161.5	160.5
82.5°	131.8	132.7	133.6	132.7	132.7
85°	104.9	104.9	105.8	105.8	103.9
87.5°	86.3	86.3	86.3	87.2	86.3
90°	73.3	75.2	75.2	76.1	74.2
92.5°	65.9	67.7	67.7	69.6	67.7
95°	69.6	68.7	69.6	71.5	72.4
97.5°	78.0	79.8	82.6	85.4	82.6
100°	81.7	88.2	90.0	90.0	84.4
102.5°	79.8	78.9	82.6	80.7	83.5
105°	85.4	78.0	78.0	74.2	80.7
107.5°	75.2	78.9	66.8	78.9	74.2
110°	76.1	74.2	73.3	76.1	77.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	78.0	71.5	77.0	71.5	78.0
115°	73.3	78.0	77.0	77.0	75.2
117.5°	76.1	78.0	79.8	80.7	76.1
120°	74.2	71.5	74.2	76.1	76.1
122.5°	66.8	65.9	66.8	68.7	72.4
125°	64.0	64.0	64.0	65.0	66.8
127.5°	65.0	65.0	64.0	65.0	65.9
130°	67.7	66.8	67.7	67.7	68.7
132.5°	68.7	67.7	65.9	67.7	70.5
135°	68.7	67.7	65.9	67.7	69.6
137.5°	69.6	68.7	68.7	68.7	70.5
140°	71.5	72.4	72.4	72.4	72.4
142.5°	75.2	75.2	75.2	75.2	77.0
145°	78.0	77.0	78.0	78.0	79.8
147.5°	80.7	79.8	80.7	80.7	81.7
150°	82.6	81.7	82.6	82.6	82.6
152.5°	83.5	82.6	83.5	83.5	83.5
155°	82.6	82.6	82.6	82.6	81.7
157.5°	80.7	80.7	80.7	80.7	79.8
160°	78.9	79.8	78.9	78.9	78.0
162.5°	76.1	76.1	76.1	75.2	75.2
165°	73.3	72.4	72.4	71.5	70.5
167.5°	69.6	68.7	67.7	67.7	66.8
170°	64.0	64.0	64.0	63.1	63.1
172.5°	58.5	57.5	57.5	57.5	56.6
175°	57.5	57.5	56.6	56.6	57.5
177.5°	57.5	57.5	58.5	57.5	57.5
180°	58.5	58.5	58.5	58.5	58.5

(END OF REPORT)