

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: P231522

Luminaire Tested: **SSLED-LD5-24-W-UNV-L840-CD2-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: P231522  
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-LD5-24-W-UNV-L840-CD2-U-CLR22-FRCDL22  
Description: STEELER CLEAR REFRACTOR LENS AND CIRCULAR 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: 21970.0 lumens  
Efficiency: N/A  
Efficacy: 115.3 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

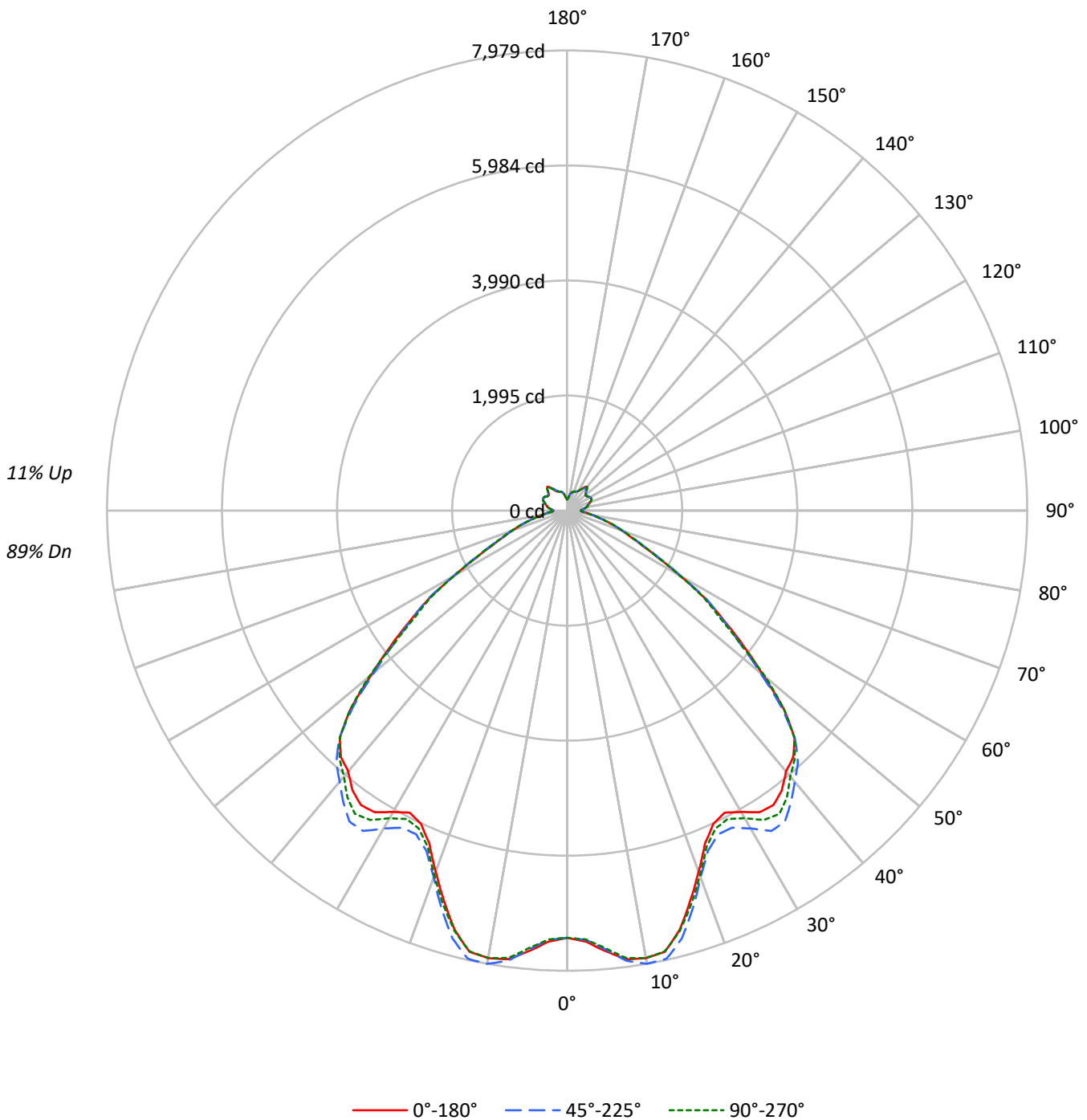
Input Watts (W): 190.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	30203	30203	30203
5°	29594	29474	29388
10°	29066	29433	29056
15°	26796	27332	26849
20°	23085	23421	23317
25°	20377	21048	20681
30°	20276	21388	20698
35°	20880	22046	21492
40°	19859	20645	20243
45°	18982	19016	18957
50°	15390	15174	15550
55°	11836	11703	11485
60°	8410	8465	8341
65°	5581	5735	5648
70°	4134	4180	4195
75°	3005	3011	3011
80°	2146	2116	2134
85°	1497	1503	1503



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	739.9	3.4
10°-20°	2107.1	9.6
20°-30°	2903.6	13.2
30°-40°	3949.7	18.0
40°-50°	4210.2	19.2
50°-60°	2969.7	13.5
60°-70°	1515.8	6.9
70°-80°	742.4	3.4
80°-90°	336.7	1.5
90°-100°	310.8	1.4
100°-110°	399.4	1.8
110°-120°	451.8	2.1
120°-130°	388.9	1.8
130°-140°	361.8	1.6
140°-150°	294.9	1.3
150°-160°	171.7	0.8
160°-170°	92.7	0.4
170°-180°	23.1	0.1
0°-30°	5750.5	26.2
0°-40°	9700.2	44.2
0°-60°	16880.0	76.8
0°-90°	19474.9	88.6
90°-120°	1161.9	5.3
90°-150°	2207.6	10.0
90°-180°	2495.0	11.4
0°-180°	21970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7407	7407	7407	7407	7407	
5°	7670	7653	7638	7614	7616	740
15°	7529	7595	7679	7597	7544	2088
25°	5996	6205	6194	6268	6085	2826
35°	6235	6248	6583	6342	6417	3849
45°	5578	5557	5588	5609	5571	4176
55°	3316	3347	3279	3291	3218	2979
65°	1440	1456	1480	1465	1457	1495
75°	685	683	686	681	686	741
85°	286	287	287	286	287	271
90°	236	238	236	239	239	133
95°	282	281	280	284	285	243
105°	379	376	370	372	374	401
115°	464	463	461	463	468	452
125°	428	426	429	429	432	388
135°	466	465	466	474	475	363
145°	474	468	475	468	468	297
155°	362	363	367	363	366	169
165°	330	327	327	324	330	93
175°	224	223	220	223	223	23
180°	193	193	193	193	193	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7407.1	7407.1	7407.1	7407.1	7407.1
2.5°	7481.7	7469.3	7449.4	7444.4	7440.7
5°	7669.5	7653.3	7638.4	7613.5	7616.0
7.5°	7846.0	7856.0	7873.4	7843.6	7823.7
10°	7879.6	7916.9	7979.1	7928.1	7877.1
12.5°	7834.9	7894.5	7960.4	7885.8	7826.1
15°	7529.0	7594.9	7679.4	7597.4	7543.9
17.5°	7096.3	7152.2	7240.5	7148.5	7155.9
20°	6664.8	6725.7	6761.8	6781.7	6731.9
22.5°	6245.7	6406.2	6380.0	6457.1	6311.6
25°	5995.8	6204.7	6193.5	6268.1	6085.3
27.5°	5905.0	6148.8	6196.0	6199.7	6026.9
30°	6033.1	6130.1	6363.9	6199.7	6158.7
32.5°	6203.5	6168.7	6587.7	6269.4	6360.1
35°	6234.6	6248.2	6582.7	6341.5	6417.3
37.5°	6112.7	6264.4	6375.1	6361.4	6261.9
40°	5905.0	6148.8	6138.8	6209.7	6019.4
42.5°	5803.1	5922.5	5922.5	5973.4	5840.4
45°	5578.0	5556.9	5588.0	5609.1	5570.6
47.5°	5095.6	5055.8	5035.9	5109.3	5105.5
50°	4434.1	4408.0	4371.9	4458.9	4480.1
52.5°	3857.1	3802.4	3768.8	3793.7	3770.1
55°	3316.2	3347.3	3278.9	3291.4	3218.0
57.5°	2837.5	2907.1	2876.1	2866.1	2811.4
60°	2271.7	2320.2	2286.7	2301.6	2253.1
62.5°	1786.8	1820.4	1835.3	1829.1	1804.2
65°	1439.9	1456.1	1479.7	1464.8	1457.3
67.5°	1188.7	1203.6	1209.9	1206.1	1211.1
70°	1008.4	1012.2	1019.6	1008.4	1023.3
72.5°	844.3	851.7	851.7	853.0	860.5
75°	685.1	682.6	686.4	681.4	686.4
77.5°	550.8	550.8	548.4	545.9	553.3
80°	451.4	446.4	445.1	443.9	448.9
82.5°	359.4	360.6	360.6	359.4	358.1
85°	286.0	287.2	287.2	286.0	287.2
87.5°	246.2	246.2	247.4	247.4	246.2
90°	236.3	237.5	236.3	238.7	238.7
92.5°	252.4	252.4	253.7	256.1	254.9
95°	282.3	281.0	279.8	283.5	284.7
97.5°	310.9	309.6	312.1	314.6	317.1
100°	343.2	343.2	345.7	346.9	349.4
102.5°	356.9	356.9	355.6	359.4	361.8
105°	379.2	375.5	370.5	371.8	374.3
107.5°	396.7	395.4	394.2	396.7	397.9
110°	422.8	421.5	421.5	421.5	424.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	448.9	448.9	447.6	448.9	451.4
115°	463.8	462.6	461.3	462.6	467.5
117.5°	467.5	467.5	465.0	468.8	472.5
120°	461.3	460.1	460.1	462.6	466.3
122.5°	445.1	443.9	443.9	446.4	450.1
125°	427.7	426.5	429.0	429.0	431.5
127.5°	415.3	416.5	419.0	416.5	417.8
130°	417.8	419.0	424.0	420.3	420.3
132.5°	431.5	432.7	441.4	438.9	438.9
135°	466.3	465.0	466.3	473.7	475.0
137.5°	506.1	496.1	482.5	507.3	513.5
140°	539.6	512.3	507.3	518.5	537.2
142.5°	514.8	499.9	487.4	502.3	513.5
145°	473.7	467.5	475.0	467.5	467.5
147.5°	426.5	435.2	451.4	429.0	427.7
150°	390.4	407.8	414.1	401.6	392.9
152.5°	374.3	381.7	385.5	379.2	379.2
155°	361.8	363.1	366.8	363.1	365.6
157.5°	353.1	356.9	356.9	356.9	355.6
160°	345.7	350.6	349.4	349.4	346.9
162.5°	340.7	343.2	341.9	341.9	341.9
165°	329.5	327.0	327.0	324.5	329.5
167.5°	310.9	307.1	307.1	305.9	309.6
170°	287.2	287.2	286.0	286.0	283.5
172.5°	248.7	247.4	246.2	246.2	246.2
175°	223.8	222.6	220.1	222.6	222.6
177.5°	205.2	205.2	206.4	203.9	203.9
180°	192.7	192.7	192.7	192.7	192.7

(END OF REPORT)