

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: P231501

Luminaire Tested: **SSLED-LD5-24-W-UNV-L840-CD2-U-CLR22-CLCDL22**

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: P231501  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-6)  
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-CLCDL22  
Description: STEELER CLEAR REFRACTOR LENS AND CONICAL 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: 22534.0 lumens  
Efficiency: N/A  
Efficacy: 118.2 lumens/watt  
Spacing Criteria (0/90/45): 1.63 / 1.67 / 1.65  
Luminous Opening: Vertical Cylinder (Dia: 1.67' x H: 1.17')  
CIE Type: Direct

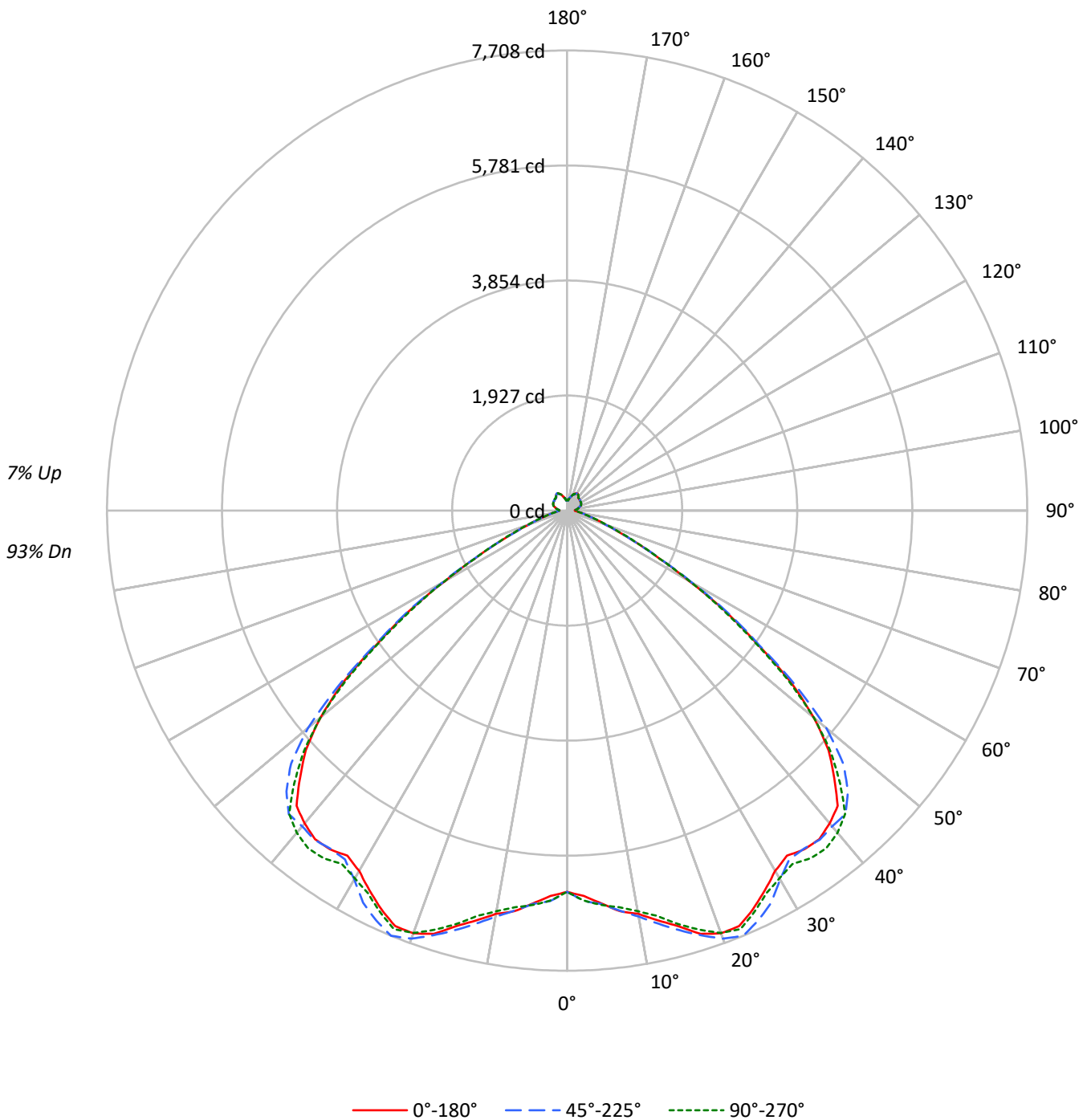
Input Watts (W): 190.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93								
1	109	105	101	98	105	102	98	95	96	94	91	91	89	87	87	85	84	81								
2	100	93	87	82	97	90	85	80	86	81	77	82	78	75	78	75	72	70								
3	92	82	75	69	89	80	73	68	76	71	66	73	68	64	69	65	62	60								
4	84	73	65	59	81	71	64	58	68	62	57	65	60	55	62	58	54	52								
5	78	66	57	51	75	64	56	50	61	54	49	59	53	48	56	51	47	45								
6	72	59	51	44	69	58	50	44	55	48	43	53	47	42	51	46	41	39								
7	66	53	45	39	64	52	44	39	50	43	38	48	42	37	46	41	37	35								
8	62	49	40	35	60	48	40	34	46	39	34	44	38	33	42	37	33	31								
9	57	44	36	31	56	44	36	31	42	35	30	40	34	30	39	33	29	28								
10	54	41	33	28	52	40	33	28	39	32	27	37	31	27	36	30	27	25								

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

	0°	45°	90°
0°	31503	31503	31503
5°	30341	30393	30473
10°	29696	29895	29497
15°	29716	30009	29557
20°	29873	30248	29849
25°	28328	29131	28529
30°	26212	26820	26759
35°	25686	25640	26364
40°	25206	25439	25962
45°	23346	24534	23855
50°	20069	21091	20077
55°	14645	14852	14466
60°	9170	9401	9247
65°	5166	5161	5266
70°	2871	2819	3001
75°	1715	1731	1759
80°	1202	1191	1196
85°	824	830	824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	639.0	2.8
10°-20°	2053.5	9.1
20°-30°	3418.3	15.2
30°-40°	4397.2	19.5
40°-50°	4968.2	22.0
50°-60°	3528.4	15.7
60°-70°	1360.9	6.0
70°-80°	447.6	2.0
80°-90°	190.5	0.8
90°-100°	163.1	0.7
100°-110°	221.9	1.0
110°-120°	255.1	1.1
120°-130°	242.9	1.1
130°-140°	217.6	1.0
140°-150°	198.2	0.9
150°-160°	143.4	0.6
160°-170°	70.3	0.3
170°-180°	17.8	0.1
0°-30°	6110.9	27.1
0°-40°	10508.1	46.6
0°-60°	19004.7	84.3
0°-90°	21003.7	93.2
90°-120°	640.0	2.8
90°-150°	1298.8	5.8
90°-180°	1530.0	6.8
0°-180°	22534.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6385	6385	6385	6385	6385	
5°	6604	6600	6615	6585	6633	639
15°	7207	7239	7278	7217	7169	2056
25°	7366	7329	7575	7384	7418	3385
35°	6926	6930	6914	7046	7109	4338
45°	6328	6426	6650	6526	6466	4843
55°	3870	3968	3924	3918	3822	3480
65°	1288	1267	1287	1288	1313	1351
75°	389	398	393	395	399	447
85°	163	164	164	164	163	153
90°	128	129	129	131	129	72
95°	142	142	143	144	146	125
105°	213	210	204	208	206	223
115°	259	257	257	260	261	254
125°	270	270	272	271	272	242
135°	280	278	280	284	286	217
145°	321	321	321	323	324	198
155°	311	310	300	308	308	145
165°	236	241	240	239	234	69
175°	172	169	169	169	169	18
180°	185	185	185	185	185	



TEST NUMBER: P231501

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L840-CD2-U-CLR22-CLCDL22

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6385.2	6385.2	6385.2	6385.2	6385.2
2.5°	6462.3	6536.9	6546.8	6492.1	6540.6
5°	6604.0	6600.3	6615.2	6585.4	6632.6
7.5°	6769.4	6747.0	6758.2	6720.9	6701.0
10°	6858.9	6854.0	6904.9	6851.5	6812.9
12.5°	7030.5	7020.6	7090.2	7010.6	6953.4
15°	7207.1	7239.4	7278.0	7217.1	7168.6
17.5°	7434.7	7362.5	7458.3	7353.8	7360.1
20°	7535.4	7434.7	7629.9	7449.6	7529.2
22.5°	7534.1	7476.9	7708.2	7430.9	7587.6
25°	7366.3	7329.0	7575.2	7383.7	7418.5
27.5°	7171.0	7241.9	7402.3	7306.6	7227.0
30°	6968.4	7189.7	7130.0	7291.7	7113.8
32.5°	6854.0	7066.6	6927.3	7184.7	7019.3
35°	6926.1	6929.8	6913.6	7045.5	7108.9
37.5°	6938.5	6888.8	6951.0	6984.5	7130.0
40°	6840.3	6867.6	6903.7	6985.8	7045.5
42.5°	6708.5	6739.6	6898.7	6840.3	6892.5
45°	6328.0	6426.2	6650.0	6525.7	6466.0
47.5°	5941.3	6173.8	6274.5	6243.4	5992.2
50°	5391.7	5585.6	5666.5	5649.0	5394.1
52.5°	4730.1	4761.2	4839.6	4776.1	4661.7
55°	3869.7	3967.9	3924.4	3918.1	3822.4
57.5°	3157.1	3214.3	3203.2	3187.0	3077.6
60°	2363.8	2408.6	2423.5	2418.5	2383.7
62.5°	1750.8	1759.5	1765.7	1791.8	1744.6
65°	1288.2	1267.1	1287.0	1288.2	1313.1
67.5°	922.6	915.2	926.4	932.6	963.7
70°	686.4	677.7	674.0	693.9	717.5
72.5°	526.0	518.5	522.3	531.0	534.7
75°	389.2	397.9	392.9	395.4	399.2
77.5°	309.6	308.4	305.9	307.1	310.9
80°	256.2	253.7	253.7	251.2	254.9
82.5°	203.9	206.4	205.2	206.4	206.4
85°	162.9	164.1	164.1	164.1	162.9
87.5°	136.8	138.0	136.8	139.3	138.0
90°	128.1	129.3	129.3	130.6	129.3
92.5°	130.6	133.1	133.1	135.5	134.3
95°	141.8	141.8	143.0	144.2	145.5
97.5°	161.7	162.9	165.4	166.6	166.6
100°	180.3	182.8	184.0	185.3	187.8
102.5°	191.5	191.5	191.5	194.0	194.0
105°	212.6	210.1	203.9	207.7	206.4
107.5°	227.6	225.1	223.8	227.6	230.0
110°	243.7	241.2	240.0	243.7	246.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	251.2	249.9	249.9	252.4	254.9
115°	258.6	257.4	257.4	259.9	261.1
117.5°	262.4	262.4	264.9	264.9	266.1
120°	263.6	264.9	267.3	267.3	267.3
122.5°	267.3	266.1	269.8	268.6	269.8
125°	269.8	269.8	272.3	271.1	272.3
127.5°	272.3	271.1	273.6	273.6	273.6
130°	274.8	274.8	277.3	277.3	277.3
132.5°	277.3	276.0	278.5	279.8	282.3
135°	279.8	278.5	279.8	283.5	286.0
137.5°	282.3	281.0	281.0	284.8	288.5
140°	286.0	287.2	284.8	288.5	289.7
142.5°	303.4	303.4	299.7	303.4	308.4
145°	320.8	320.8	320.8	323.3	324.5
147.5°	329.5	330.8	332.0	332.0	333.2
150°	332.0	332.0	332.0	332.0	333.2
152.5°	328.3	327.0	319.6	325.8	327.0
155°	310.9	309.6	299.7	308.4	308.4
157.5°	295.9	294.7	284.8	293.5	294.7
160°	284.8	291.0	281.0	289.7	283.5
162.5°	257.4	269.8	263.6	266.1	256.2
165°	236.3	241.2	240.0	238.7	233.8
167.5°	222.6	227.6	225.1	226.3	218.8
170°	208.9	212.6	213.9	210.1	205.2
172.5°	185.3	187.8	191.5	185.3	185.3
175°	171.6	169.1	169.1	169.1	169.1
177.5°	177.8	177.8	179.1	175.3	175.3
180°	185.3	185.3	185.3	185.3	185.3

(END OF REPORT)