

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: P231479

Luminaire Tested: **SSLED-LD5-24-W-UNV-L835-CD2-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: P231479  
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-LD5-24-W-UNV-L835-CD2-U-CLR22  
Description: STEELER CLEAR REFRACTOR LENS  
Light Source: (240) 3500 CCT, 80 CRI LEDS  
Ballast/Driver: (2) ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21926.0 lumens  
Efficiency: N/A  
Efficacy: 115.0 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

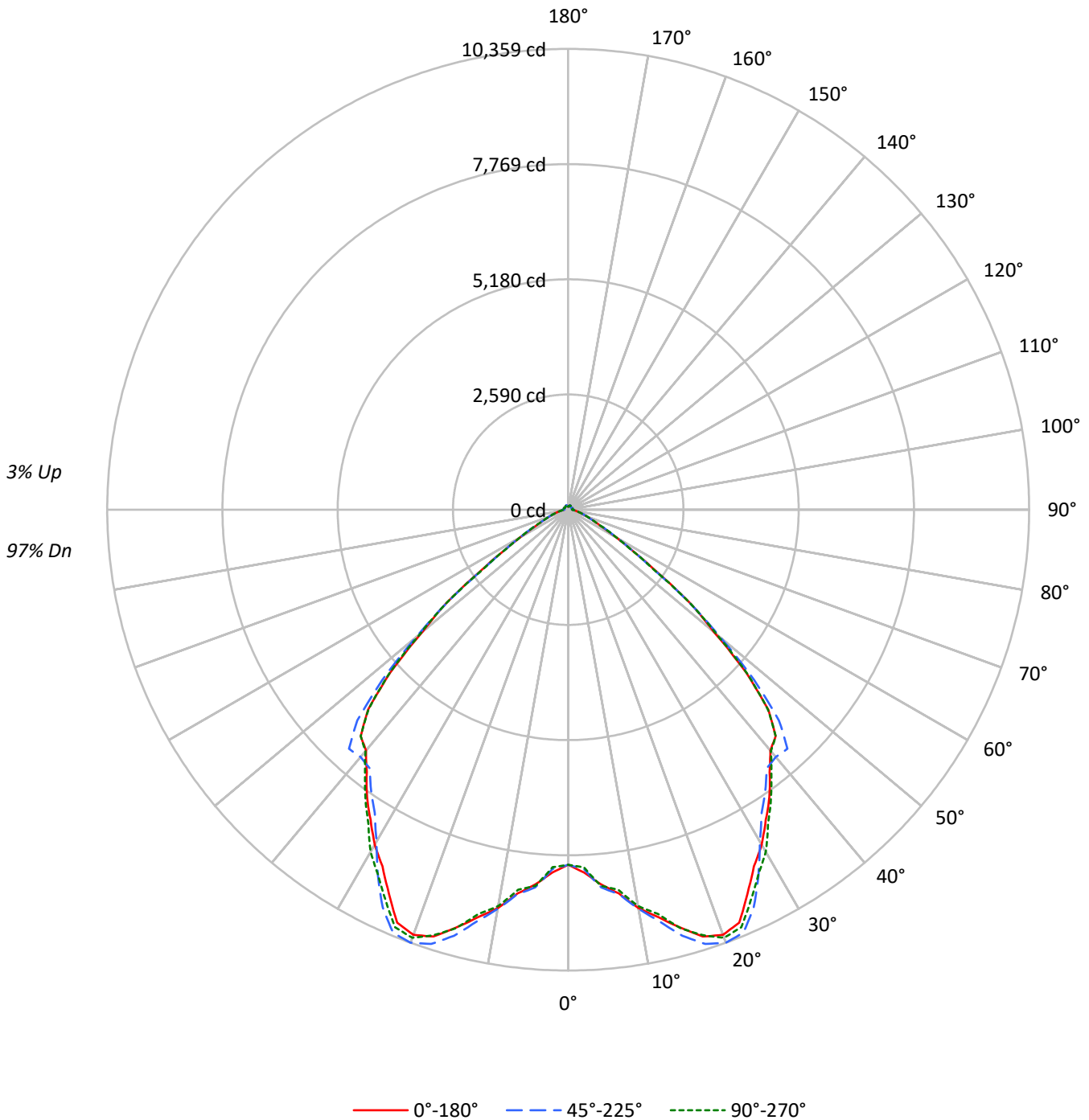
Input Watts (W): 190.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231479

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L835-CD2-U-CLR22

### Luminous Intensity Polar Plot





TEST NUMBER: P231479

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L835-CD2-U-CLR22

**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°	32554	32554	32554
5°	32610	32892	32753
10°	33528	33605	33365
15°	34609	35284	34646
20°	35224	35880	35465
25°	32376	33525	32968
30°	29219	28934	29848
35°	26407	25866	26606
40°	23761	24414	23843
45°	21638	22797	21599
50°	14858	15487	15088
55°	8577	8287	8369
60°	4631	4713	4640
65°	2663	2776	2704
70°	1821	1868	1868
75°	1290	1311	1295
80°	962	973	956
85°	688	694	682



TEST NUMBER: P231479

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L835-CD2-U-CLR22

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	823.6	3.8
10°-20°	2792.3	12.7
20°-30°	4478.9	20.4
30°-40°	4925.0	22.5
40°-50°	4792.6	21.9
50°-60°	2297.9	10.5
60°-70°	751.4	3.4
70°-80°	327.5	1.5
80°-90°	151.3	0.7
90°-100°	103.0	0.5
100°-110°	104.6	0.5
110°-120°	94.6	0.4
120°-130°	75.4	0.3
130°-140°	66.5	0.3
140°-150°	61.1	0.3
150°-160°	47.5	0.2
160°-170°	25.8	0.1
170°-180°	7.0	0.0
0°-30°	8094.8	36.9
0°-40°	13019.8	59.4
0°-60°	20110.3	91.7
0°-90°	21340.5	97.3
90°-120°	302.2	1.4
90°-150°	505.2	2.3
90°-180°	586.0	2.7
0°-180°	21926.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7984	7984	7984	7984	7984	
5°	8451	8445	8524	8492	8488	824
15°	9724	9832	9914	9799	9735	2767
25°	9526	9859	9865	9972	9701	4379
35°	7885	7715	7723	7792	7944	4922
45°	6358	6278	6699	6285	6347	4685
55°	2403	2415	2322	2394	2345	2289
65°	687	700	716	713	698	736
75°	294	296	299	296	295	324
85°	131	131	132	132	130	123
90°	92	94	94	95	93	51
95°	87	86	87	90	91	75
105°	107	98	98	93	101	106
115°	92	98	96	96	94	94
125°	80	80	80	81	84	75
135°	86	85	82	85	87	67
145°	98	96	98	98	100	61
155°	104	104	104	104	102	48
165°	92	91	91	90	88	26
175°	72	72	71	71	72	7
180°	73	73	73	73	73	



TEST NUMBER: P231479

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L835-CD2-U-CLR22

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7983.7	7983.7	7983.7	7983.7	7983.7
2.5°	8161.6	8119.8	8080.2	8051.2	8044.2
5°	8451.1	8445.3	8524.3	8491.8	8488.3
7.5°	8701.1	8716.2	8712.7	8670.8	8616.2
10°	9089.4	9092.9	9110.3	9087.1	9045.2
12.5°	9384.7	9518.4	9477.7	9435.8	9305.6
15°	9724.2	9832.3	9913.7	9798.6	9734.6
17.5°	10059.0	10174.1	10234.6	10205.5	10026.5
20°	10169.5	10348.5	10359.0	10386.9	10239.2
22.5°	10045.1	10249.7	10288.0	10341.5	10159.0
25°	9526.5	9859.0	9864.8	9971.8	9700.9
27.5°	9038.2	9318.4	9259.1	9457.9	9252.1
30°	8694.1	8742.9	8609.2	8860.3	8881.3
32.5°	8266.2	8145.3	8087.2	8205.8	8360.4
35°	7884.9	7715.2	7723.3	7791.9	7944.2
37.5°	7438.5	7557.0	7326.8	7652.4	7498.9
40°	7065.3	7294.3	7259.4	7350.1	7089.7
42.5°	6900.2	6878.1	7292.0	6892.0	6901.3
45°	6358.4	6278.2	6699.0	6285.1	6346.8
47.5°	5421.3	5682.9	5667.8	5760.8	5455.0
50°	4280.8	4548.2	4462.1	4659.8	4347.0
52.5°	3456.5	3341.4	3433.2	3377.4	3456.5
55°	2403.1	2414.8	2321.8	2393.8	2345.0
57.5°	1704.4	1742.8	1709.1	1706.7	1689.3
60°	1251.0	1255.6	1273.1	1269.6	1253.3
62.5°	915.0	924.3	944.0	942.9	932.4
65°	687.1	699.9	716.2	712.7	697.6
67.5°	536.0	549.9	553.4	555.7	558.1
70°	444.1	448.8	455.7	455.7	455.7
72.5°	369.7	375.5	376.7	377.9	375.5
75°	294.1	296.5	298.8	296.5	295.3
77.5°	243.0	243.0	241.8	240.7	241.8
80°	202.3	203.5	204.6	202.3	201.1
82.5°	165.1	166.3	167.4	166.3	166.3
85°	131.4	131.4	132.5	132.5	130.2
87.5°	108.1	108.1	108.1	109.3	108.1
90°	91.8	94.2	94.2	95.3	93.0
92.5°	82.5	84.9	84.9	87.2	84.9
95°	87.2	86.0	87.2	89.5	90.7
97.5°	97.7	100.0	103.5	107.0	103.5
100°	102.3	110.4	112.8	112.8	105.8
102.5°	100.0	98.8	103.5	101.1	104.6
105°	107.0	97.7	97.7	93.0	101.1
107.5°	94.2	98.8	83.7	98.8	93.0
110°	95.3	93.0	91.8	95.3	96.5



TEST NUMBER: P231479

CATALOG NUMBER: SSLED-LD5-24-W-UNV-L835-CD2-U-CLR22

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	97.7	89.5	96.5	89.5	97.7
115°	91.8	97.7	96.5	96.5	94.2
117.5°	95.3	97.7	100.0	101.1	95.3
120°	93.0	89.5	93.0	95.3	95.3
122.5°	83.7	82.5	83.7	86.0	90.7
125°	80.2	80.2	80.2	81.4	83.7
127.5°	81.4	81.4	80.2	81.4	82.5
130°	84.9	83.7	84.9	84.9	86.0
132.5°	86.0	84.9	82.5	84.9	88.4
135°	86.0	84.9	82.5	84.9	87.2
137.5°	87.2	86.0	86.0	86.0	88.4
140°	89.5	90.7	90.7	90.7	90.7
142.5°	94.2	94.2	94.2	94.2	96.5
145°	97.7	96.5	97.7	97.7	100.0
147.5°	101.1	100.0	101.1	101.1	102.3
150°	103.5	102.3	103.5	103.5	103.5
152.5°	104.6	103.5	104.6	104.6	104.6
155°	103.5	103.5	103.5	103.5	102.3
157.5°	101.1	101.1	101.1	101.1	100.0
160°	98.8	100.0	98.8	98.8	97.7
162.5°	95.3	95.3	95.3	94.2	94.2
165°	91.8	90.7	90.7	89.5	88.4
167.5°	87.2	86.0	84.9	84.9	83.7
170°	80.2	80.2	80.2	79.1	79.1
172.5°	73.2	72.1	72.1	72.1	70.9
175°	72.1	72.1	70.9	70.9	72.1
177.5°	72.1	72.1	73.2	72.1	72.1
180°	73.2	73.2	73.2	73.2	73.2

(END OF REPORT)