

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: P231458

Luminaire Tested: **SSLED-LD5-24-W-UNV-L835-CD2-U-FRR22-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: P231458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-4)  
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-FRR22-FRCDL22  
Description: STEELER WHITE REFRACTOR LENS AND CIRCULAR DROP  
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: 21137.0 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.16 / 1.37  
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')  
CIE Type: Semi-Direct

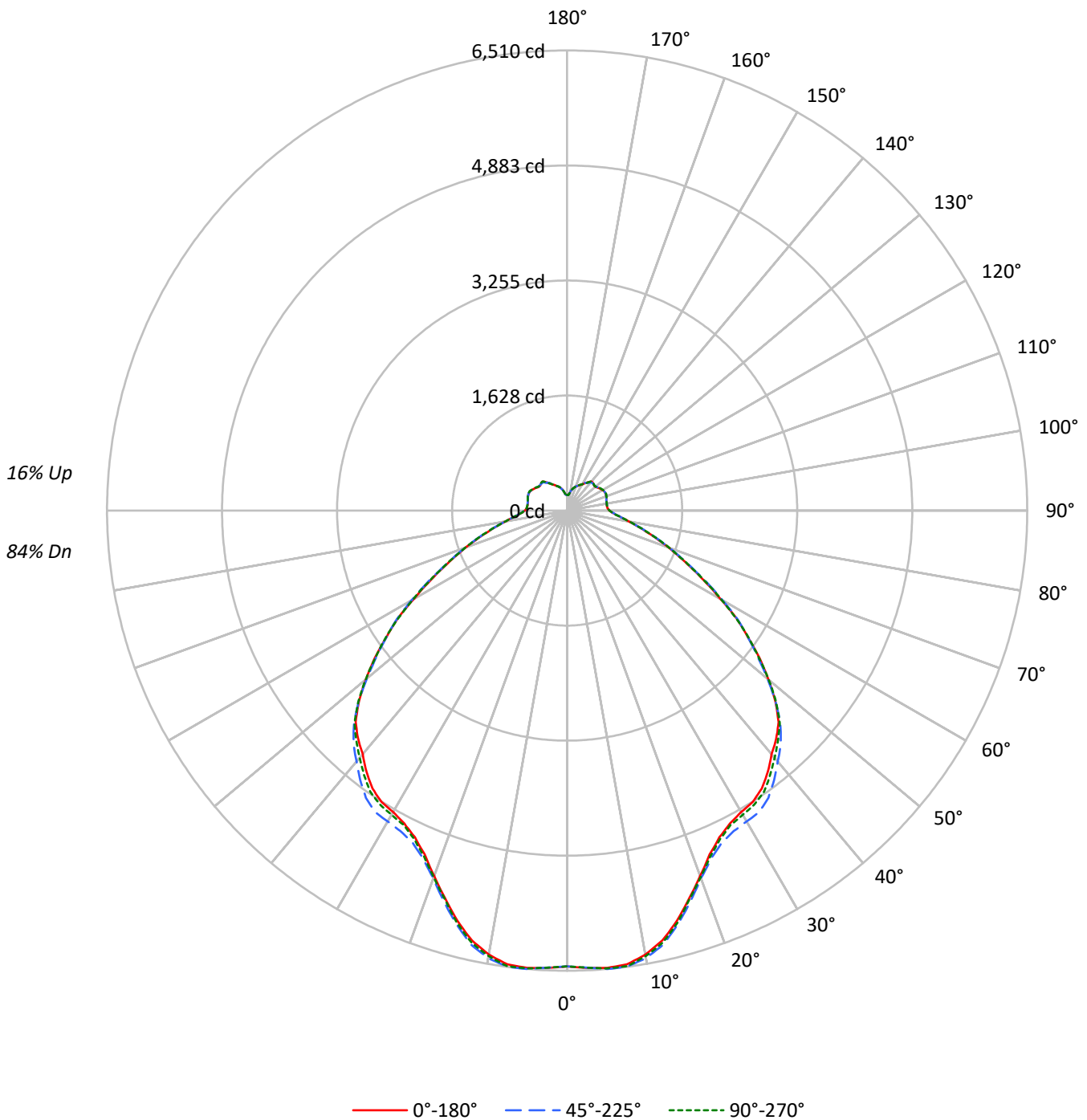
Input Watts (W): 190.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	115	115	115	115	111	111	111	111	102	102	102	95	95	95	88	88	88	84
1	104	100	95	91	100	96	92	88	89	85	82	82	79	77	76	74	72	69
2	95	87	80	74	91	83	77	72	77	72	68	72	68	64	66	63	60	57
3	87	76	68	61	83	73	66	60	68	62	57	63	58	54	59	55	51	48
4	79	67	59	52	76	65	57	51	60	54	48	56	51	46	52	48	44	41
5	73	60	51	45	70	58	50	44	54	47	42	51	45	40	47	42	38	36
6	67	54	45	39	64	52	44	38	49	42	37	46	40	35	43	38	34	31
7	62	49	40	34	60	47	39	34	44	37	32	42	36	31	39	34	30	28
8	58	45	36	30	55	43	35	30	41	34	29	38	32	28	36	31	27	25
9	54	41	33	27	52	40	32	27	37	31	26	35	29	25	33	28	24	22
10	51	38	30	25	49	37	29	24	34	28	23	33	27	23	31	26	22	20

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

	0°	45°	90°
0°	26297	26297	26297
5°	25061	25119	25088
10°	23524	23713	23610
15°	21381	21555	21476
20°	19057	19173	19113
25°	17331	17599	17413
30°	16548	17068	16704
35°	16078	16619	16265
40°	15132	15586	15355
45°	14398	14509	14477
50°	12905	12837	12925
55°	11142	11146	11191
60°	9284	9400	9336
65°	7598	7665	7625
70°	6249	6287	6292
75°	5089	5156	5156
80°	4207	4240	4245
85°	3639	3670	3633



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	618.0	2.9
10°-20°	1690.3	8.0
20°-30°	2403.4	11.4
30°-40°	3036.3	14.4
40°-50°	3253.8	15.4
50°-60°	2790.5	13.2
60°-70°	1974.1	9.3
70°-80°	1253.1	5.9
80°-90°	780.9	3.7
90°-100°	627.8	3.0
100°-110°	609.7	2.9
110°-120°	588.2	2.8
120°-130°	498.4	2.4
130°-140°	409.1	1.9
140°-150°	303.4	1.4
150°-160°	183.9	0.9
160°-170°	92.9	0.4
170°-180°	23.2	0.1
0°-30°	4711.7	22.3
0°-40°	7748.0	36.7
0°-60°	13792.3	65.3
0°-90°	17800.4	84.2
90°-120°	1825.7	8.6
90°-150°	3036.6	14.4
90°-180°	3337.0	15.8
0°-180°	21137.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6449	6449	6449	6449	6449	
5°	6495	6503	6510	6506	6502	616
15°	6008	6016	6056	6041	6034	1682
25°	5100	5176	5178	5210	5124	2372
35°	4801	4818	4962	4856	4856	2989
45°	4231	4240	4264	4273	4254	3228
55°	3122	3121	3123	3107	3136	2795
65°	1960	1972	1978	1973	1967	1959
75°	1160	1173	1176	1176	1176	1244
85°	695	694	701	695	694	609
90°	599	600	602	601	599	330
95°	567	568	571	571	570	464
105°	573	573	574	576	577	608
115°	594	595	596	599	600	586
125°	553	555	557	557	559	495
135°	528	528	528	530	532	409
145°	480	482	481	479	477	304
155°	393	394	394	392	395	183
165°	327	326	324	326	327	93
175°	227	226	224	226	226	23
180°	221	221	221	221	221	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6449.3	6449.3	6449.3	6449.3	6449.3
2.5°	6476.1	6476.1	6471.4	6474.9	6471.4
5°	6494.7	6502.8	6509.8	6506.3	6501.7
7.5°	6474.9	6483.1	6506.3	6500.5	6500.5
10°	6377.3	6392.4	6428.4	6417.9	6400.5
12.5°	6229.6	6255.2	6287.7	6268.0	6259.8
15°	6007.5	6015.7	6056.4	6041.2	6034.3
17.5°	5747.1	5747.1	5798.2	5795.9	5761.0
20°	5501.8	5519.2	5535.5	5551.8	5518.0
22.5°	5265.7	5326.2	5325.0	5355.3	5293.6
25°	5099.5	5176.2	5178.5	5209.9	5123.9
27.5°	4990.2	5076.2	5108.8	5106.5	5013.4
30°	4923.9	4973.9	5078.5	5014.6	4970.4
32.5°	4889.0	4891.4	5056.5	4930.9	4930.9
35°	4800.7	4818.1	4962.3	4856.5	4856.5
37.5°	4662.3	4729.7	4807.6	4765.8	4717.0
40°	4499.5	4611.2	4634.4	4627.4	4565.8
42.5°	4378.6	4441.4	4476.3	4468.1	4415.8
45°	4231.0	4240.3	4263.5	4272.8	4254.2
47.5°	3996.1	3992.6	4003.1	4008.9	4011.2
50°	3718.2	3691.5	3698.5	3697.3	3724.0
52.5°	3433.4	3399.6	3399.6	3393.8	3417.1
55°	3121.8	3120.6	3122.9	3106.7	3135.7
57.5°	2840.4	2849.7	2856.7	2836.9	2829.9
60°	2507.9	2539.3	2539.3	2531.1	2521.8
62.5°	2219.5	2242.8	2255.6	2237.0	2235.8
65°	1960.3	1971.9	1977.7	1973.1	1967.2
67.5°	1723.1	1737.0	1744.0	1733.5	1734.7
70°	1524.3	1528.9	1533.6	1544.0	1534.7
72.5°	1333.6	1337.1	1346.4	1344.0	1344.0
75°	1160.3	1173.1	1175.5	1175.5	1175.5
77.5°	1016.2	1023.2	1022.0	1019.7	1017.3
80°	884.8	891.8	891.8	891.8	892.9
82.5°	782.5	781.3	783.6	786.0	786.0
85°	695.3	694.1	701.1	695.3	694.1
87.5°	634.8	638.3	640.6	639.5	637.1
90°	598.8	599.9	602.3	601.1	598.8
92.5°	576.7	579.0	581.3	581.3	580.2
95°	567.4	568.5	570.9	570.9	569.7
97.5°	565.1	566.2	568.5	568.5	567.4
100°	566.2	567.4	568.5	568.5	569.7
102.5°	567.4	568.5	569.7	570.9	570.9
105°	573.2	573.2	574.4	575.5	576.7
107.5°	580.2	581.3	582.5	583.7	583.7
110°	588.3	589.5	589.5	591.8	591.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	594.1	595.3	595.3	597.6	598.8
115°	594.1	595.3	596.5	598.8	599.9
117.5°	589.5	589.5	590.6	593.0	595.3
120°	579.0	579.0	581.3	582.5	584.8
122.5°	566.2	567.4	569.7	570.9	572.0
125°	553.4	554.6	556.9	556.9	559.2
127.5°	536.0	539.5	541.8	541.8	543.0
130°	522.0	525.5	527.9	529.0	527.9
132.5°	518.6	522.0	525.5	523.2	520.9
135°	527.9	527.9	527.9	530.2	532.5
137.5°	537.2	534.8	526.7	536.0	539.5
140°	537.2	529.0	523.2	527.9	537.2
142.5°	510.4	508.1	496.5	505.8	509.2
145°	480.2	482.5	481.3	479.0	476.7
147.5°	454.6	459.3	462.7	453.4	453.4
150°	426.7	437.2	437.2	433.7	430.2
152.5°	411.6	413.9	413.9	411.6	412.7
155°	393.0	394.1	394.1	391.8	395.3
157.5°	374.4	376.7	376.7	376.7	375.5
160°	361.6	362.8	361.6	361.6	360.4
162.5°	345.3	344.2	344.2	344.2	345.3
165°	326.7	325.5	324.4	325.5	326.7
167.5°	304.6	304.6	303.5	303.5	303.5
170°	277.9	279.0	277.9	277.9	276.7
172.5°	243.0	241.8	243.0	243.0	244.2
175°	226.7	225.6	224.4	225.6	225.6
177.5°	220.9	222.1	222.1	220.9	219.7
180°	220.9	220.9	220.9	220.9	220.9

(END OF REPORT)