

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: P231417

Luminaire Tested: **SSLED-LD5-24-W-UNV-L840-CD2-U-FRR22**

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: P231417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-2)
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-FRR22
Description: STEELER WHITE REFRACTOR LENS
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: 24017.0 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.43 / 1.45
Luminous Opening: Vertical Cylinder (Dia: 1.83' x H: 1')
CIE Type: Direct

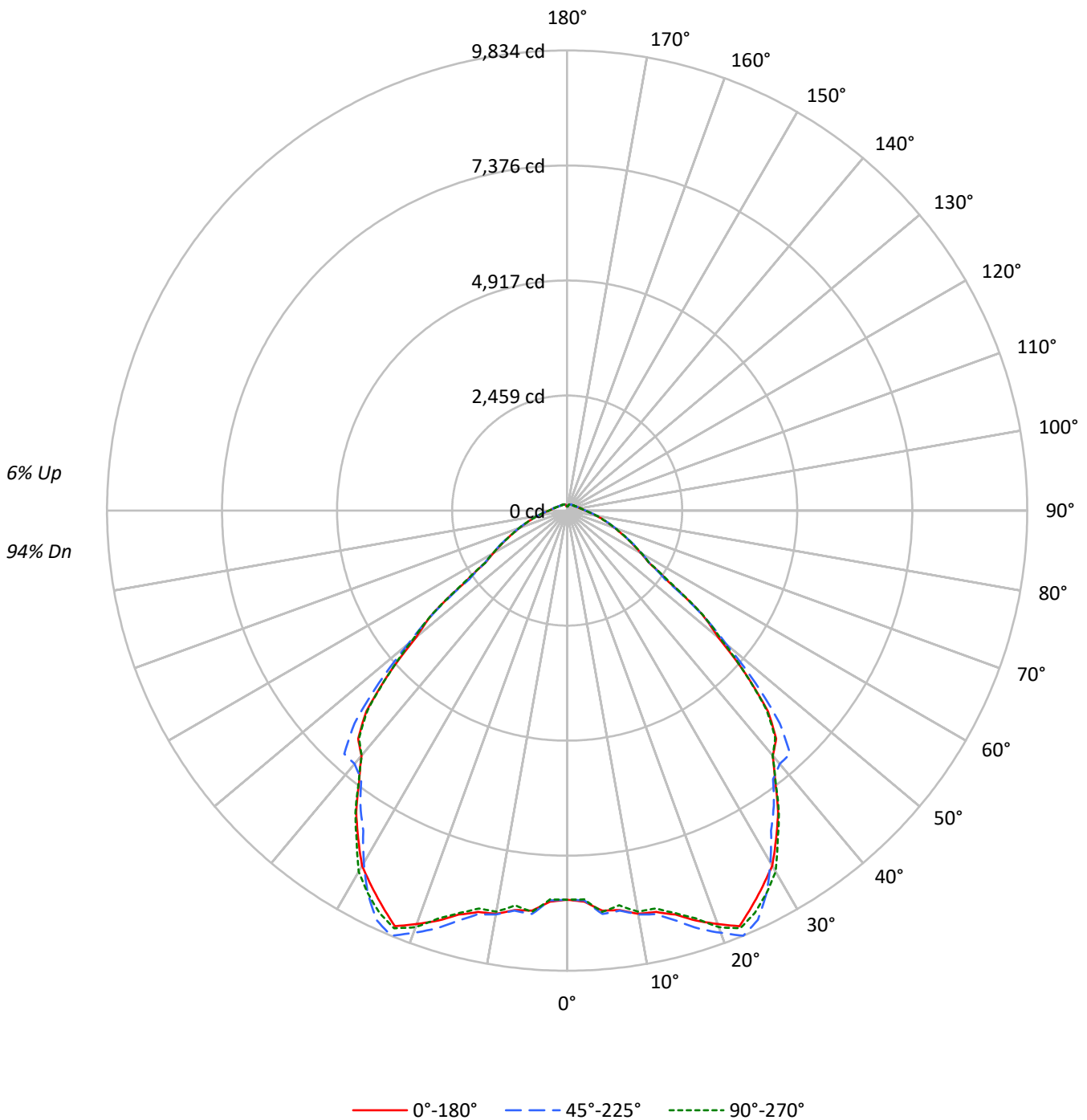
Input Watts (W): 190.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0	
RCR																						
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94				
1	109	104	100	97	105	101	98	95	96	93	91	91	89	87	87	85	84	81				
2	100	93	87	81	97	90	85	80	86	81	77	82	78	75	78	75	72	70				
3	92	83	75	69	89	81	74	69	77	71	67	74	69	65	70	66	63	61				
4	85	74	66	60	82	72	65	59	69	63	58	66	61	57	64	59	55	53				
5	79	67	59	53	76	65	58	52	63	56	51	60	55	50	58	53	49	47				
6	73	61	52	46	71	59	52	46	57	50	45	55	49	44	53	48	44	42				
7	68	55	47	41	66	54	47	41	52	45	40	50	44	40	49	43	39	37				
8	63	51	43	37	61	50	42	37	48	41	36	46	40	36	45	39	35	33				
9	59	47	39	34	58	46	38	33	44	38	33	43	37	32	41	36	32	30				
10	55	43	35	31	54	42	35	30	41	34	30	40	34	30	38	33	29	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33909	33909	33909
5°	33111	33389	33216
10°	32272	32327	32107
15°	31810	32315	31686
20°	32560	33262	32814
25°	31731	32792	32242
30°	29457	29206	29950
35°	26323	25794	26423
40°	22995	23773	22978
45°	20645	21877	20527
50°	14643	15420	15002
55°	9448	9106	9644
60°	6744	6836	6836
65°	5465	5528	5470
70°	4409	4481	4455
75°	3621	3676	3632
80°	3021	3057	3051
85°	2551	2597	2571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	820.3	3.4
10°-20°	2583.5	10.8
20°-30°	4370.4	18.2
30°-40°	4886.9	20.3
40°-50°	4618.6	19.2
50°-60°	2538.9	10.6
60°-70°	1421.0	5.9
70°-80°	893.7	3.7
80°-90°	544.5	2.3
90°-100°	363.6	1.5
100°-110°	271.0	1.1
110°-120°	207.3	0.9
120°-130°	161.8	0.7
130°-140°	127.0	0.5
140°-150°	97.2	0.4
150°-160°	67.5	0.3
160°-170°	35.0	0.1
170°-180°	8.9	0.0
0°-30°	7774.1	32.4
0°-40°	12661.0	52.7
0°-60°	19818.5	82.5
0°-90°	22677.7	94.4
90°-120°	841.9	3.5
90°-150°	1227.9	5.1
90°-180°	1339.0	5.6
0°-180°	24017.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8316	8316	8316	8316	8316	
5°	8581	8596	8653	8597	8608	820
15°	8938	9021	9080	8980	8903	2561
25°	9337	9670	9649	9806	9487	4280
35°	7860	7693	7702	7718	7890	4887
45°	6067	6014	6428	5961	6032	4499
55°	2647	2631	2552	2675	2702	2526
65°	1410	1415	1426	1419	1411	1406
75°	826	832	838	836	828	885
85°	487	489	496	490	491	429
90°	384	388	390	389	387	212
95°	327	330	332	331	330	259
105°	254	254	255	255	255	270
115°	206	208	208	209	209	206
125°	178	179	179	180	180	161
135°	163	163	163	163	164	126
145°	154	154	154	154	155	97
155°	146	147	146	146	147	68
165°	123	123	122	122	122	35
175°	90	90	88	88	90	9
180°	92	92	92	92	92	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8316.0	8316.0	8316.0	8316.0	8316.0
2.5°	8364.5	8358.3	8335.9	8314.8	8316.0
5°	8580.9	8595.8	8653.0	8597.1	8608.2
7.5°	8610.7	8645.5	8623.2	8575.9	8508.8
10°	8748.8	8761.2	8763.7	8738.8	8704.0
12.5°	8786.1	8900.5	8835.8	8813.4	8709.0
15°	8937.8	9021.1	9079.5	8980.0	8902.9
17.5°	9190.2	9331.9	9369.2	9326.9	9134.2
20°	9400.3	9598.0	9603.0	9621.6	9473.7
22.5°	9615.4	9801.9	9834.3	9869.1	9661.4
25°	9336.9	9670.1	9649.0	9805.7	9487.3
27.5°	9050.9	9290.9	9227.5	9405.3	9221.3
30°	8764.9	8818.4	8690.3	8871.9	8911.6
32.5°	8311.1	8148.2	8112.1	8219.1	8372.0
35°	7859.7	7693.1	7701.8	7718.0	7889.5
37.5°	7301.4	7471.8	7230.5	7517.8	7317.6
40°	6837.6	7100.0	7068.9	7109.9	6832.6
42.5°	6611.3	6598.9	7051.5	6607.6	6580.2
45°	6066.7	6014.5	6428.5	5961.0	6031.9
47.5°	5180.1	5514.6	5463.6	5517.1	5175.1
50°	4218.9	4546.0	4442.8	4626.8	4322.2
52.5°	3630.8	3470.4	3587.3	3520.1	3645.7
55°	2647.3	2631.1	2551.5	2674.6	2702.0
57.5°	2069.1	2080.3	2089.0	2081.5	2076.5
60°	1821.6	1847.7	1846.5	1845.2	1846.5
62.5°	1600.3	1615.2	1631.4	1620.2	1621.4
65°	1410.0	1415.0	1426.2	1418.8	1411.3
67.5°	1226.0	1240.9	1247.2	1248.4	1242.2
70°	1075.6	1086.8	1093.0	1090.5	1086.8
72.5°	947.5	953.7	964.9	961.2	953.7
75°	825.6	831.9	838.1	835.6	828.1
77.5°	723.7	728.6	733.6	734.9	729.9
80°	635.4	640.4	642.9	639.1	641.6
82.5°	555.8	560.8	563.3	562.0	560.8
85°	487.4	488.7	496.1	489.9	491.2
87.5°	429.0	430.2	432.7	432.7	430.2
90°	384.2	387.9	390.4	389.2	386.7
92.5°	353.1	356.9	356.9	356.9	355.6
95°	327.0	329.5	332.0	330.8	329.5
97.5°	305.9	307.1	309.6	308.4	307.1
100°	286.0	287.2	289.7	288.5	287.2
102.5°	267.3	269.8	271.1	271.1	269.8
105°	253.7	253.7	254.9	254.9	254.9
107.5°	240.0	240.0	241.2	241.2	241.2
110°	228.8	228.8	228.8	228.8	230.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	216.4	217.6	217.6	217.6	218.8
115°	206.4	207.7	207.7	208.9	208.9
117.5°	197.7	197.7	198.9	198.9	200.2
120°	190.2	191.5	191.5	192.7	192.7
122.5°	184.0	184.0	185.3	185.3	186.5
125°	177.8	179.1	179.1	180.3	180.3
127.5°	172.8	174.1	175.3	175.3	175.3
130°	170.3	171.6	171.6	171.6	172.8
132.5°	166.6	166.6	166.6	167.9	169.1
135°	162.9	162.9	162.9	162.9	164.1
137.5°	159.2	160.4	160.4	160.4	160.4
140°	156.7	157.9	157.9	157.9	157.9
142.5°	155.4	156.7	156.7	156.7	156.7
145°	154.2	154.2	154.2	154.2	155.4
147.5°	152.9	152.9	152.9	152.9	152.9
150°	151.7	151.7	150.5	150.5	151.7
152.5°	149.2	149.2	148.0	149.2	149.2
155°	145.5	146.7	145.5	145.5	146.7
157.5°	143.0	143.0	143.0	143.0	143.0
160°	138.0	138.0	136.8	136.8	138.0
162.5°	130.6	130.6	130.6	130.6	130.6
165°	123.1	123.1	121.9	121.9	121.9
167.5°	114.4	114.4	114.4	114.4	114.4
170°	103.2	104.4	103.2	103.2	103.2
172.5°	90.8	90.8	90.8	90.8	90.8
175°	89.5	89.5	88.3	88.3	89.5
177.5°	89.5	90.8	90.8	90.8	89.5
180°	92.0	92.0	92.0	92.0	92.0

(END OF REPORT)