

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: P231406

Luminaire Tested: **SSLED-LD5-9-W-UNV-L850-CD1-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: P231406  
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-LD5-9-W-UNV-L850-CD1-U-FRR22  
Description: STEELER WHITE REFRACTOR LENS  
Light Source: (240) 5000 CCT, 80 CRI LEDS  
Ballast/Driver: (1) ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9521.0 lumens  
Efficiency: N/A  
Efficacy: 148.5 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

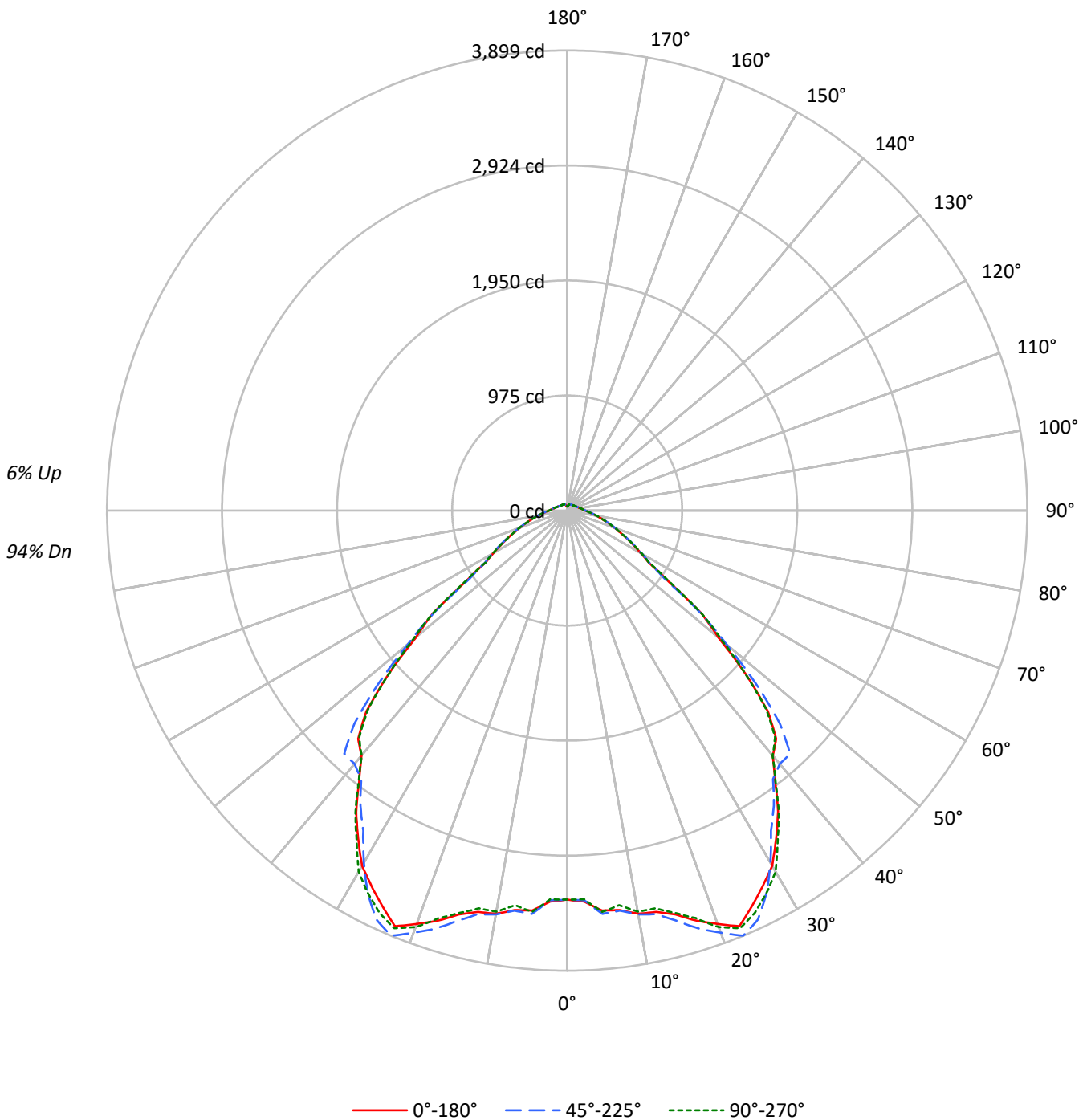
Input Watts (W): 64.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	
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°	13442	13442	13442
5°	13126	13236	13168
10°	12793	12815	12728
15°	12610	12811	12561
20°	12907	13186	13008
25°	12579	12999	12782
30°	11678	11578	11873
35°	10435	10226	10475
40°	9116	9424	9109
45°	8184	8672	8137
50°	5805	6113	5947
55°	3745	3610	3823
60°	2673	2710	2710
65°	2167	2191	2169
70°	1748	1776	1766
75°	1436	1457	1440
80°	1198	1211	1210
85°	1011	1030	1019



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	325.2	3.4
10°-20°	1024.2	10.8
20°-30°	1732.5	18.2
30°-40°	1937.3	20.3
40°-50°	1830.9	19.2
50°-60°	1006.5	10.6
60°-70°	563.3	5.9
70°-80°	354.3	3.7
80°-90°	215.9	2.3
90°-100°	144.1	1.5
100°-110°	107.5	1.1
110°-120°	82.2	0.9
120°-130°	64.1	0.7
130°-140°	50.4	0.5
140°-150°	38.5	0.4
150°-160°	26.8	0.3
160°-170°	13.9	0.1
170°-180°	3.5	0.0
0°-30°	3081.9	32.4
0°-40°	5019.2	52.7
0°-60°	7856.6	82.5
0°-90°	8990.0	94.4
90°-120°	333.8	3.5
90°-150°	486.8	5.1
90°-180°	531.0	5.6
0°-180°	9521.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3297	3297	3297	3297	3297	
5°	3402	3408	3430	3408	3412	325
15°	3543	3576	3599	3560	3529	1015
25°	3701	3834	3825	3887	3761	1697
35°	3116	3050	3053	3060	3128	1938
45°	2405	2384	2548	2363	2391	1784
55°	1049	1043	1012	1060	1071	1002
65°	559	561	565	562	560	557
75°	327	330	332	331	328	351
85°	193	194	197	194	195	170
90°	152	154	155	154	153	84
95°	130	131	132	131	131	103
105°	101	101	101	101	101	107
115°	82	82	82	83	83	82
125°	70	71	71	72	72	64
135°	65	65	65	65	65	50
145°	61	61	61	61	62	38
155°	58	58	58	58	58	27
165°	49	49	48	48	48	14
175°	36	36	35	35	36	4
180°	36	36	36	36	36	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3296.7	3296.7	3296.7	3296.7	3296.7
2.5°	3315.9	3313.5	3304.6	3296.2	3296.7
5°	3401.7	3407.6	3430.3	3408.1	3412.5
7.5°	3413.5	3427.3	3418.5	3399.7	3373.1
10°	3468.2	3473.2	3474.2	3464.3	3450.5
12.5°	3483.0	3528.4	3502.8	3493.9	3452.5
15°	3543.2	3576.2	3599.4	3559.9	3529.4
17.5°	3643.2	3699.4	3714.2	3697.5	3621.1
20°	3726.5	3804.9	3806.9	3814.3	3755.6
22.5°	3811.8	3885.8	3898.6	3912.4	3830.1
25°	3701.4	3833.5	3825.1	3887.2	3761.0
27.5°	3588.0	3683.2	3658.0	3728.5	3655.6
30°	3474.7	3495.9	3445.1	3517.0	3532.8
32.5°	3294.7	3230.2	3215.9	3258.3	3318.9
35°	3115.8	3049.8	3053.2	3059.6	3127.6
37.5°	2894.5	2962.0	2866.4	2980.2	2900.9
40°	2710.6	2814.6	2802.3	2818.6	2708.6
42.5°	2620.9	2616.0	2795.4	2619.4	2608.6
45°	2405.0	2384.3	2548.4	2363.1	2391.2
47.5°	2053.5	2186.1	2165.9	2187.1	2051.6
50°	1672.5	1802.1	1761.2	1834.2	1713.4
52.5°	1439.4	1375.8	1422.1	1395.5	1445.3
55°	1049.4	1043.0	1011.5	1060.3	1071.1
57.5°	820.2	824.7	828.1	825.2	823.2
60°	722.1	732.5	732.0	731.5	732.0
62.5°	634.4	640.3	646.7	642.3	642.8
65°	559.0	561.0	565.4	562.4	559.5
67.5°	486.0	491.9	494.4	494.9	492.4
70°	426.4	430.8	433.3	432.3	430.8
72.5°	375.6	378.1	382.5	381.0	378.1
75°	327.3	329.8	332.2	331.2	328.3
77.5°	286.9	288.9	290.8	291.3	289.3
80°	251.9	253.9	254.8	253.4	254.4
82.5°	220.3	222.3	223.3	222.8	222.3
85°	193.2	193.7	196.7	194.2	194.7
87.5°	170.1	170.6	171.5	171.5	170.6
90°	152.3	153.8	154.8	154.3	153.3
92.5°	140.0	141.5	141.5	141.5	141.0
95°	129.6	130.6	131.6	131.1	130.6
97.5°	121.3	121.8	122.7	122.2	121.8
100°	113.4	113.9	114.9	114.4	113.9
102.5°	106.0	107.0	107.5	107.5	107.0
105°	100.6	100.6	101.1	101.1	101.1
107.5°	95.1	95.1	95.6	95.6	95.6
110°	90.7	90.7	90.7	90.7	91.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	85.8	86.3	86.3	86.3	86.8
115°	81.8	82.3	82.3	82.8	82.8
117.5°	78.4	78.4	78.9	78.9	79.4
120°	75.4	75.9	75.9	76.4	76.4
122.5°	73.0	73.0	73.4	73.4	73.9
125°	70.5	71.0	71.0	71.5	71.5
127.5°	68.5	69.0	69.5	69.5	69.5
130°	67.5	68.0	68.0	68.0	68.5
132.5°	66.1	66.1	66.1	66.5	67.0
135°	64.6	64.6	64.6	64.6	65.1
137.5°	63.1	63.6	63.6	63.6	63.6
140°	62.1	62.6	62.6	62.6	62.6
142.5°	61.6	62.1	62.1	62.1	62.1
145°	61.1	61.1	61.1	61.1	61.6
147.5°	60.6	60.6	60.6	60.6	60.6
150°	60.1	60.1	59.6	59.6	60.1
152.5°	59.2	59.2	58.7	59.2	59.2
155°	57.7	58.2	57.7	57.7	58.2
157.5°	56.7	56.7	56.7	56.7	56.7
160°	54.7	54.7	54.2	54.2	54.7
162.5°	51.8	51.8	51.8	51.8	51.8
165°	48.8	48.8	48.3	48.3	48.3
167.5°	45.3	45.3	45.3	45.3	45.3
170°	40.9	41.4	40.9	40.9	40.9
172.5°	36.0	36.0	36.0	36.0	36.0
175°	35.5	35.5	35.0	35.0	35.5
177.5°	35.5	36.0	36.0	36.0	35.5
180°	36.5	36.5	36.5	36.5	36.5

(END OF REPORT)