

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: P231409

Luminaire Tested: **SSLED-LD5-12-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: P231409  
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-LD5-12-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: 12697.0 lumens  
Efficiency: N/A  
Efficacy: 148.9 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

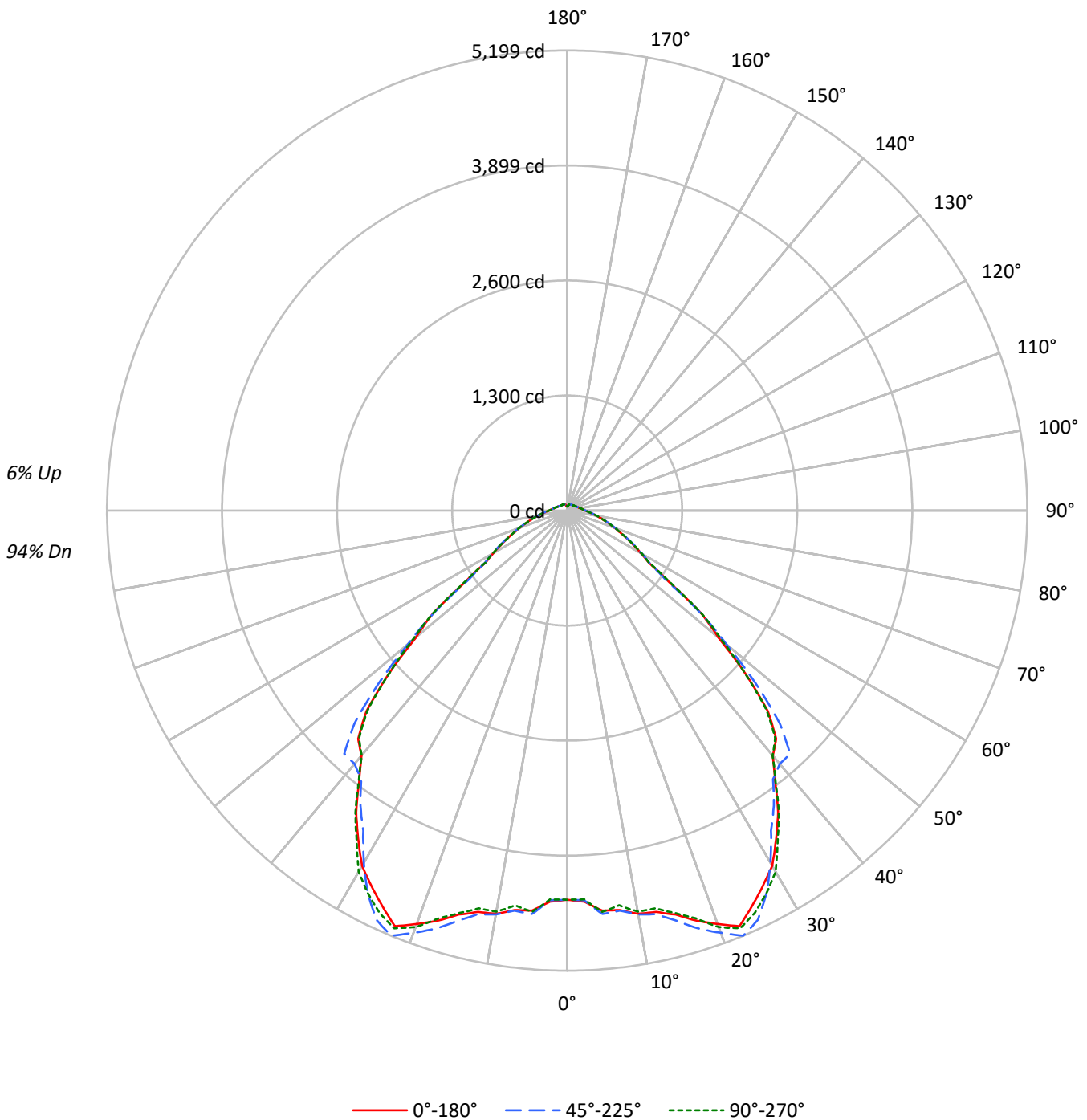
Input Watts (W): 85.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231409

CATALOG NUMBER: SSLED-LD5-12-W-UNV-L850-CD1-U-FRR22

### Luminous Intensity Polar Plot





TEST NUMBER: P231409

CATALOG NUMBER: SSLED-LD5-12-W-UNV-L850-CD1-U-FRR22

**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	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°	17926	17926	17926
5°	17504	17652	17560
10°	17061	17090	16974
15°	16817	17084	16751
20°	17213	17584	17348
25°	16775	17336	17045
30°	15573	15440	15834
35°	13916	13637	13969
40°	12157	12568	12148
45°	10915	11565	10852
50°	7741	8152	7931
55°	4995	4814	5098
60°	3565	3614	3614
65°	2889	2922	2892
70°	2331	2369	2355
75°	1915	1943	1920
80°	1597	1616	1613
85°	1349	1373	1359



TEST NUMBER: P231409

CATALOG NUMBER: SSLED-LD5-12-W-UNV-L850-CD1-U-FRR22

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	433.7	3.4
10°-20°	1365.8	10.8
20°-30°	2310.5	18.2
30°-40°	2583.5	20.3
40°-50°	2441.7	19.2
50°-60°	1342.2	10.6
60°-70°	751.2	5.9
70°-80°	472.5	3.7
80°-90°	287.9	2.3
90°-100°	192.2	1.5
100°-110°	143.3	1.1
110°-120°	109.6	0.9
120°-130°	85.5	0.7
130°-140°	67.1	0.5
140°-150°	51.4	0.4
150°-160°	35.7	0.3
160°-170°	18.5	0.1
170°-180°	4.7	0.0
0°-30°	4109.9	32.4
0°-40°	6693.4	52.7
0°-60°	10477.4	82.5
0°-90°	11988.9	94.4
90°-120°	445.1	3.5
90°-150°	649.2	5.1
90°-180°	708.0	5.6
0°-180°	12697.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4396	4396	4396	4396	4396	
5°	4536	4544	4575	4545	4551	434
15°	4725	4769	4800	4747	4707	1354
25°	4936	5112	5101	5184	5016	2263
35°	4155	4067	4072	4080	4171	2584
45°	3207	3180	3398	3151	3189	2379
55°	1400	1391	1349	1414	1428	1336
65°	745	748	754	750	746	743
75°	436	440	443	442	438	468
85°	258	258	262	259	260	227
90°	203	205	206	206	204	112
95°	173	174	176	175	174	137
105°	134	134	135	135	135	143
115°	109	110	110	110	110	109
125°	94	95	95	95	95	85
135°	86	86	86	86	87	67
145°	82	82	82	82	82	51
155°	77	78	77	77	78	36
165°	65	65	64	64	64	19
175°	47	47	47	47	47	5
180°	49	49	49	49	49	



TEST NUMBER: P231409

CATALOG NUMBER: SSLED-LD5-12-W-UNV-L850-CD1-U-FRR22

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4396.4	4396.4	4396.4	4396.4	4396.4
2.5°	4422.1	4418.8	4406.9	4395.8	4396.4
5°	4536.4	4544.3	4574.6	4545.0	4550.9
7.5°	4552.2	4570.6	4558.8	4533.8	4498.3
10°	4625.2	4631.8	4633.1	4619.9	4601.5
12.5°	4644.9	4705.4	4671.2	4659.4	4604.1
15°	4725.1	4769.1	4800.0	4747.4	4706.7
17.5°	4858.5	4933.5	4953.2	4930.9	4829.0
20°	4969.6	5074.2	5076.8	5086.6	5008.4
22.5°	5083.4	5182.0	5199.1	5217.5	5107.7
25°	4936.1	5112.3	5101.1	5183.9	5015.6
27.5°	4784.9	4911.8	4878.3	4972.3	4875.0
30°	4633.7	4662.0	4594.3	4690.3	4711.3
32.5°	4393.8	4307.7	4288.6	4345.1	4426.0
35°	4155.2	4067.1	4071.7	4080.2	4170.9
37.5°	3860.0	3950.1	3822.5	3974.4	3868.6
40°	3614.8	3753.5	3737.1	3758.8	3612.2
42.5°	3495.2	3488.6	3727.9	3493.2	3478.7
45°	3207.3	3179.6	3398.5	3151.4	3188.8
47.5°	2738.6	2915.4	2888.4	2916.7	2735.9
50°	2230.4	2403.3	2348.7	2446.0	2285.0
52.5°	1919.5	1834.7	1896.5	1861.0	1927.4
55°	1399.5	1391.0	1348.9	1414.0	1428.4
57.5°	1093.8	1099.8	1104.4	1100.4	1097.8
60°	963.0	976.8	976.2	975.5	976.2
62.5°	846.0	853.9	862.5	856.5	857.2
65°	745.4	748.1	754.0	750.0	746.1
67.5°	648.2	656.0	659.3	660.0	656.7
70°	568.6	574.5	577.8	576.5	574.5
72.5°	500.9	504.2	510.1	508.1	504.2
75°	436.5	439.8	443.1	441.7	437.8
77.5°	382.6	385.2	387.8	388.5	385.9
80°	335.9	338.5	339.9	337.9	339.2
82.5°	293.8	296.5	297.8	297.1	296.5
85°	257.7	258.3	262.3	259.0	259.7
87.5°	226.8	227.4	228.8	228.8	227.4
90°	203.1	205.1	206.4	205.8	204.4
92.5°	186.7	188.7	188.7	188.7	188.0
95°	172.9	174.2	175.5	174.9	174.2
97.5°	161.7	162.4	163.7	163.0	162.4
100°	151.2	151.8	153.2	152.5	151.8
102.5°	141.3	142.6	143.3	143.3	142.6
105°	134.1	134.1	134.8	134.8	134.8
107.5°	126.9	126.9	127.5	127.5	127.5
110°	121.0	121.0	121.0	121.0	121.6



TEST NUMBER: P231409

CATALOG NUMBER: SSLED-LD5-12-W-UNV-L850-CD1-U-FRR22

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	114.4	115.0	115.0	115.0	115.7
115°	109.1	109.8	109.8	110.4	110.4
117.5°	104.5	104.5	105.2	105.2	105.8
120°	100.6	101.2	101.2	101.9	101.9
122.5°	97.3	97.3	97.9	97.9	98.6
125°	94.0	94.7	94.7	95.3	95.3
127.5°	91.4	92.0	92.7	92.7	92.7
130°	90.1	90.7	90.7	90.7	91.4
132.5°	88.1	88.1	88.1	88.7	89.4
135°	86.1	86.1	86.1	86.1	86.8
137.5°	84.1	84.8	84.8	84.8	84.8
140°	82.8	83.5	83.5	83.5	83.5
142.5°	82.2	82.8	82.8	82.8	82.8
145°	81.5	81.5	81.5	81.5	82.2
147.5°	80.9	80.9	80.9	80.9	80.9
150°	80.2	80.2	79.5	79.5	80.2
152.5°	78.9	78.9	78.2	78.9	78.9
155°	76.9	77.6	76.9	76.9	77.6
157.5°	75.6	75.6	75.6	75.6	75.6
160°	73.0	73.0	72.3	72.3	73.0
162.5°	69.0	69.0	69.0	69.0	69.0
165°	65.1	65.1	64.4	64.4	64.4
167.5°	60.5	60.5	60.5	60.5	60.5
170°	54.6	55.2	54.6	54.6	54.6
172.5°	48.0	48.0	48.0	48.0	48.0
175°	47.3	47.3	46.7	46.7	47.3
177.5°	47.3	48.0	48.0	48.0	47.3
180°	48.6	48.6	48.6	48.6	48.6

(END OF REPORT)