

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: FAIL-SAFE

Report Number: P489087

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-30-120-EDD**

Issue Date: 3/11/2021

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: P489087
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-24-2-INS-A19156-LD4-2LO-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

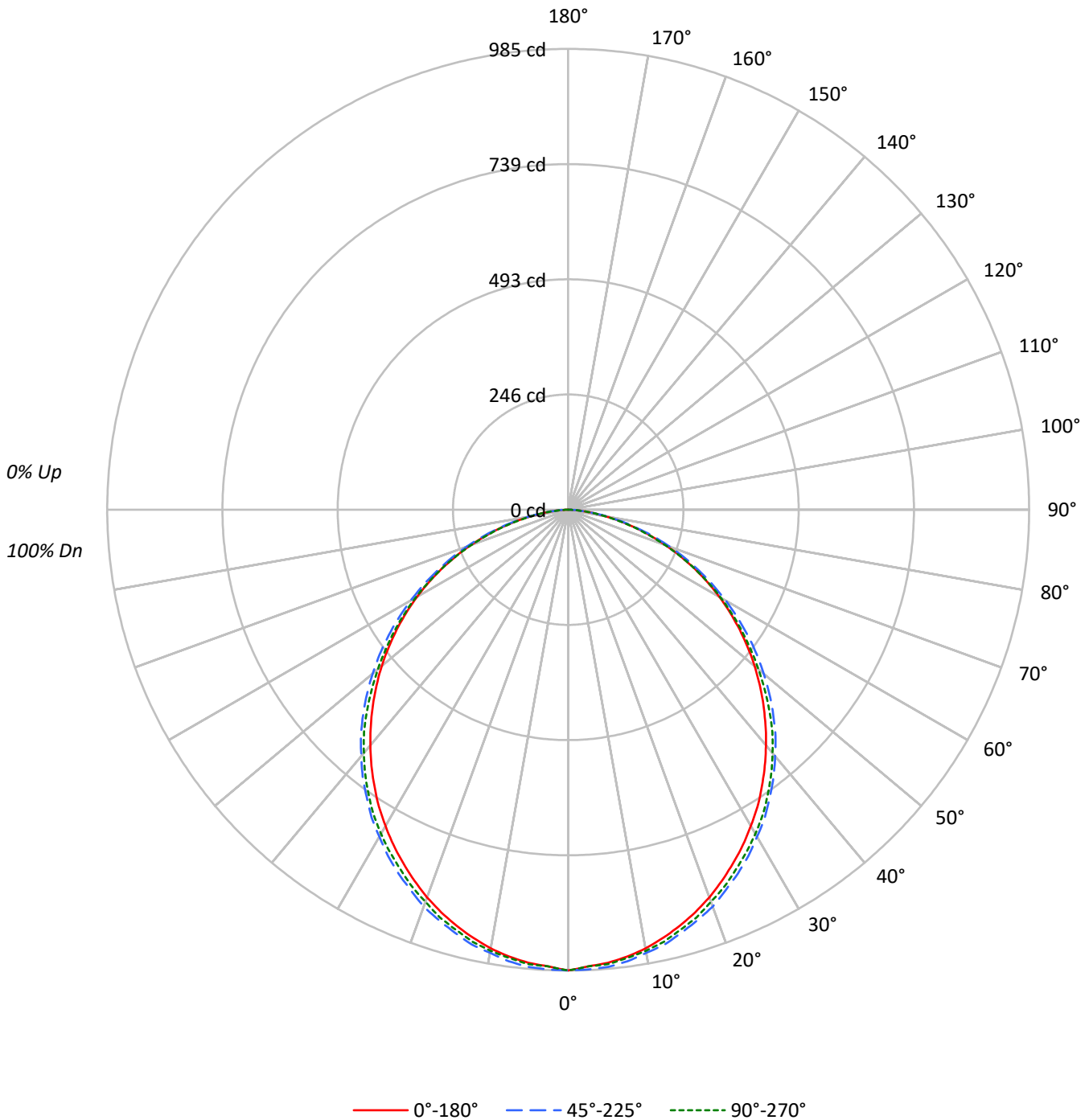
Lumens per Lamp: N/A
Luminaire Lumens: 2589.2 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2650	2650	2650
5°	2626	2650	2634
10°	2602	2628	2615
15°	2566	2607	2589
20°	2525	2585	2554
25°	2476	2548	2519
30°	2426	2508	2485
35°	2371	2465	2442
40°	2310	2416	2386
45°	2245	2358	2314
50°	2177	2283	2223
55°	2099	2197	2129
60°	2009	2093	2028
65°	1894	1966	1895
70°	1742	1813	1723
75°	1535	1603	1511
80°	1246	1300	1232
85°	868	926	902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	3.6
10°-20°	262.8	10.2
20°-30°	392.0	15.1
30°-40°	464.5	17.9
40°-50°	470.1	18.2
50°-60°	410.5	15.9
60°-70°	300.0	11.6
70°-80°	159.6	6.2
80°-90°	36.9	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	747.6	28.9
0°-40°	1212.1	46.8
0°-60°	2092.7	80.8
0°-90°	2589.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2589.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	972	974	981	983	975	92
15°	921	927	936	941	929	260
25°	834	844	858	861	848	384
35°	722	733	750	756	744	451
45°	590	600	620	620	608	455
55°	447	456	468	461	454	400
65°	297	303	309	303	298	294
75°	148	151	154	149	145	157
85°	28	29	30	30	29	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	984.8	984.8	984.8	984.8	984.8
2.5°	977.1	980.3	983.6	985.0	977.0
5°	972.0	973.9	981.1	983.4	975.1
7.5°	963.6	966.4	973.4	974.5	966.5
10°	952.1	957.0	961.8	966.9	957.1
12.5°	937.4	944.1	952.1	953.0	945.6
15°	920.9	927.1	935.8	941.4	929.2
17.5°	902.4	908.4	919.7	920.7	913.3
20°	881.8	889.2	902.8	905.1	891.9
22.5°	858.4	868.4	879.7	881.9	872.2
25°	833.9	844.2	858.1	861.3	848.3
27.5°	808.2	818.1	833.8	836.1	825.1
30°	780.8	790.0	807.2	811.0	799.8
32.5°	752.8	762.1	781.2	784.3	773.5
35°	721.9	733.1	750.5	755.7	743.5
37.5°	690.2	701.2	720.9	725.6	712.5
40°	657.5	668.4	687.8	691.7	679.1
42.5°	624.1	634.9	655.7	656.3	645.8
45°	589.9	600.4	619.7	620.2	608.0
47.5°	555.2	565.8	583.0	581.1	569.6
50°	520.1	530.2	545.3	541.4	531.0
52.5°	483.8	493.5	507.8	501.4	491.7
55°	447.3	456.3	468.2	461.4	453.8
57.5°	410.4	419.6	428.7	421.8	415.3
60°	373.3	381.3	388.8	381.8	376.8
62.5°	335.5	342.4	348.9	342.2	337.5
65°	297.4	303.4	308.7	302.6	297.6
67.5°	259.4	264.5	269.5	263.1	257.9
70°	221.4	225.8	230.4	223.8	219.0
72.5°	184.0	187.9	191.9	185.5	181.3
75°	147.6	150.9	154.2	148.6	145.3
77.5°	112.8	115.6	117.9	114.3	111.1
80°	80.4	82.6	83.9	82.5	79.5
82.5°	51.7	53.3	54.0	53.9	51.9
85°	28.1	28.6	30.0	30.3	29.2
87.5°	10.9	11.6	11.9	12.8	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)