

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: P489639

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-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: P489639
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-24-4-INS-A19156-LD4-2STD-30-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

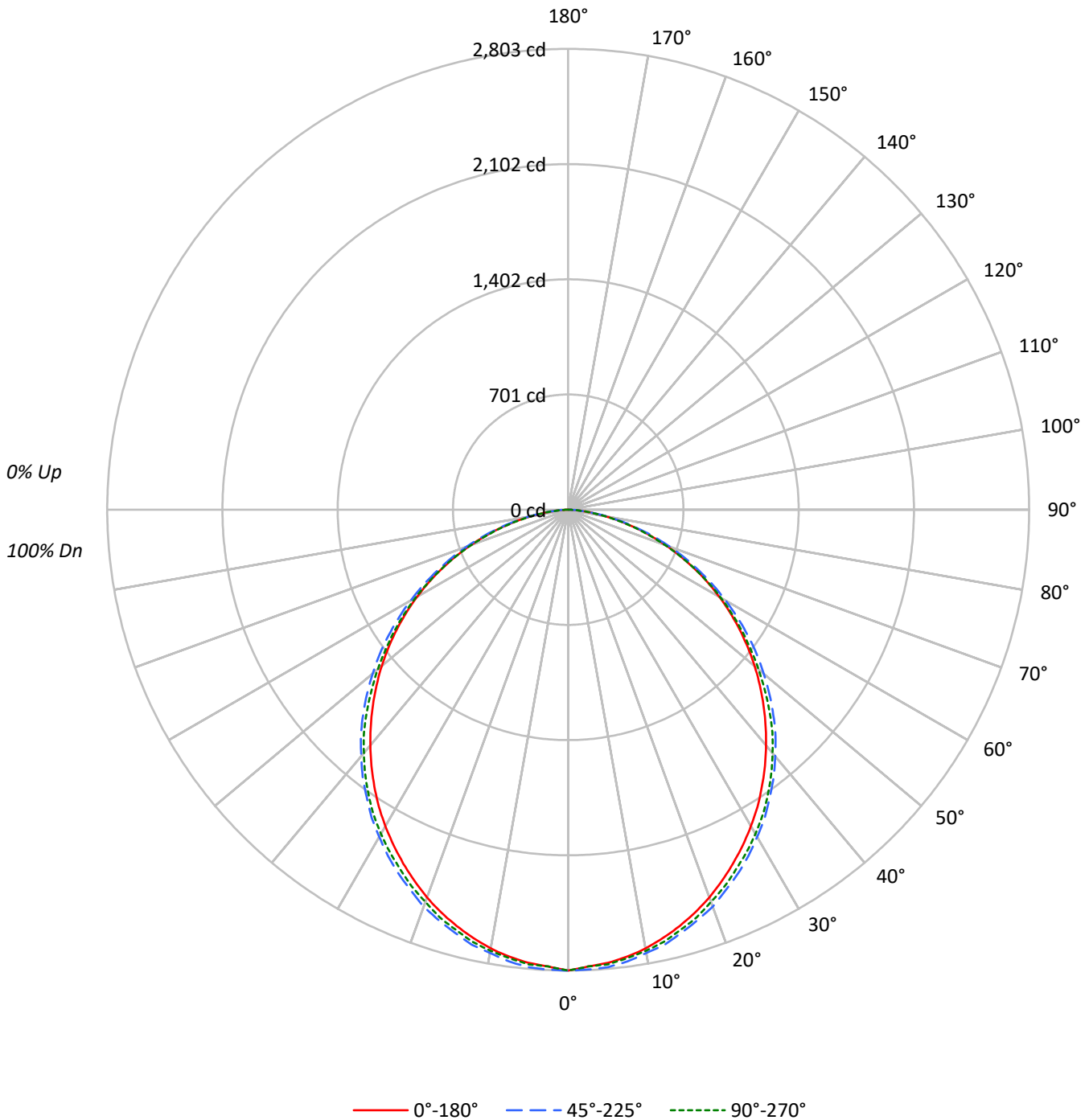
Lumens per Lamp: N/A
Luminaire Lumens: 7369.7 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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

TEST NUMBER: P489639

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2STD-30-120-EDD

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°	3772	3772	3772
5°	3737	3772	3749
10°	3703	3740	3722
15°	3651	3710	3684
20°	3594	3679	3635
25°	3524	3626	3584
30°	3453	3570	3537
35°	3375	3509	3476
40°	3287	3439	3395
45°	3195	3356	3293
50°	3099	3249	3164
55°	2986	3126	3030
60°	2859	2978	2886
65°	2695	2798	2697
70°	2480	2579	2452
75°	2183	2282	2150
80°	1774	1851	1753
85°	1235	1317	1284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.0	3.6
10°-20°	748.1	10.2
20°-30°	1115.8	15.1
30°-40°	1322.2	17.9
40°-50°	1337.9	18.2
50°-60°	1168.5	15.9
60°-70°	853.9	11.6
70°-80°	454.3	6.2
80°-90°	105.0	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°	2127.9	28.9
0°-40°	3450.2	46.8
0°-60°	5956.5	80.8
0°-90°	7369.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7369.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2803	2803	2803	2803	2803	
5°	2767	2772	2793	2799	2775	262
15°	2621	2639	2664	2680	2645	739
25°	2374	2403	2442	2452	2414	1094
35°	2055	2087	2136	2151	2116	1285
45°	1679	1709	1764	1765	1730	1295
55°	1273	1299	1333	1313	1292	1138
65°	846	864	879	861	847	838
75°	420	430	439	423	414	447
85°	80	82	85	86	83	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2803.2	2803.2	2803.2	2803.2	2803.2
2.5°	2781.3	2790.3	2799.7	2803.8	2781.0
5°	2766.7	2771.9	2792.7	2799.1	2775.4
7.5°	2742.7	2750.6	2770.8	2773.7	2750.9
10°	2710.0	2724.0	2737.5	2752.1	2724.3
12.5°	2668.2	2687.2	2710.0	2712.6	2691.6
15°	2621.2	2638.7	2663.6	2679.6	2644.9
17.5°	2568.6	2585.6	2617.7	2620.6	2599.6
20°	2509.9	2531.0	2569.5	2576.2	2538.6
22.5°	2443.4	2471.7	2503.8	2510.2	2482.5
25°	2373.6	2402.8	2442.5	2451.5	2414.4
27.5°	2300.5	2328.6	2373.3	2379.7	2348.4
30°	2222.3	2248.6	2297.6	2308.4	2276.6
32.5°	2142.8	2169.1	2223.4	2232.5	2201.5
35°	2054.6	2086.8	2136.1	2151.0	2116.3
37.5°	1964.7	1995.9	2052.0	2065.4	2028.0
40°	1871.5	1902.5	1957.7	1968.8	1932.8
42.5°	1776.3	1807.3	1866.2	1868.0	1838.2
45°	1679.0	1708.8	1763.7	1765.2	1730.4
47.5°	1580.3	1610.4	1659.5	1653.9	1621.2
50°	1480.4	1509.1	1552.0	1540.9	1511.4
52.5°	1377.1	1404.8	1445.4	1427.3	1399.5
55°	1273.1	1298.8	1332.7	1313.4	1291.8
57.5°	1168.2	1194.2	1220.2	1200.6	1182.0
60°	1062.5	1085.3	1106.6	1086.7	1072.4
62.5°	955.0	974.6	993.0	974.0	960.6
65°	846.4	863.6	878.8	861.3	847.0
67.5°	738.3	752.9	766.9	748.8	733.9
70°	630.3	642.8	655.7	637.0	623.3
72.5°	523.7	534.8	546.1	528.0	516.1
75°	420.0	429.6	439.0	422.9	413.6
77.5°	321.0	329.1	335.6	325.4	316.3
80°	229.0	235.1	238.9	234.8	226.3
82.5°	147.2	151.6	153.6	153.3	147.8
85°	80.0	81.5	85.3	86.2	83.2
87.5°	31.0	33.0	33.9	36.5	33.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)