

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: P489171

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-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: P489171
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-LD4-4STD-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

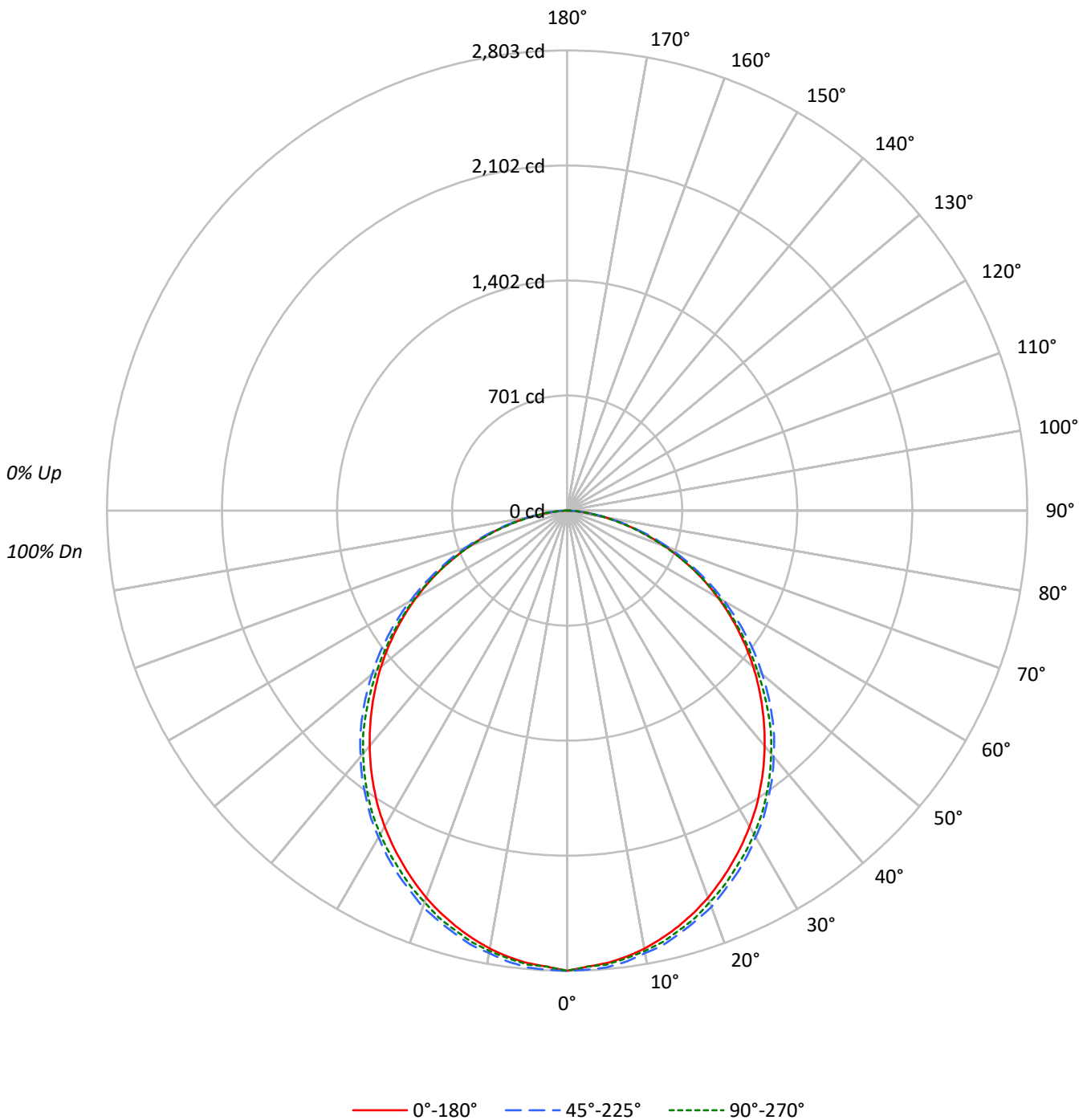
Lumens per Lamp: N/A
Luminaire Lumens: 7369.4 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	7543	7543	7543
5°	7473	7543	7497
10°	7405	7480	7444
15°	7302	7420	7368
20°	7187	7358	7269
25°	7047	7252	7168
30°	6905	7139	7074
35°	6749	7017	6952
40°	6574	6877	6790
45°	6390	6712	6585
50°	6198	6497	6327
55°	5972	6252	6060
60°	5718	5956	5772
65°	5389	5596	5393
70°	4958	5158	4903
75°	4367	4563	4299
80°	3549	3702	3507
85°	2470	2634	2569



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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°	1337.8	18.2
50°-60°	1168.4	15.9
60°-70°	853.8	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°	2127.8	28.9
0°-40°	3450.0	46.8
0°-60°	5956.3	80.8
0°-90°	7369.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7369.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2803	2803	2803	2803	2803	
5°	2767	2772	2792	2799	2775	262
15°	2621	2639	2664	2680	2645	739
25°	2374	2403	2442	2451	2414	1093
35°	2054	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°	2803.1	2803.1	2803.1	2803.1	2803.1
2.5°	2781.2	2790.2	2799.6	2803.6	2780.9
5°	2766.6	2771.8	2792.5	2799.0	2775.3
7.5°	2742.6	2750.5	2770.6	2773.6	2750.8
10°	2709.9	2723.9	2737.3	2751.9	2724.2
12.5°	2668.1	2687.1	2709.9	2712.5	2691.5
15°	2621.1	2638.6	2663.5	2679.5	2644.8
17.5°	2568.5	2585.5	2617.6	2620.5	2599.5
20°	2509.8	2530.9	2569.4	2576.1	2538.5
22.5°	2443.3	2471.6	2503.7	2510.1	2482.4
25°	2373.5	2402.7	2442.4	2451.4	2414.3
27.5°	2300.4	2328.5	2373.2	2379.6	2348.3
30°	2222.2	2248.5	2297.5	2308.3	2276.5
32.5°	2142.7	2169.0	2223.3	2232.4	2201.4
35°	2054.5	2086.7	2136.0	2150.9	2116.2
37.5°	1964.6	1995.8	2051.9	2065.3	2028.0
40°	1871.4	1902.4	1957.6	1968.7	1932.8
42.5°	1776.2	1807.2	1866.2	1867.9	1838.1
45°	1679.0	1708.8	1763.7	1765.1	1730.4
47.5°	1580.3	1610.3	1659.4	1653.9	1621.1
50°	1480.4	1509.0	1551.9	1540.8	1511.3
52.5°	1377.0	1404.7	1445.3	1427.2	1399.5
55°	1273.0	1298.7	1332.6	1313.3	1291.7
57.5°	1168.2	1194.2	1220.2	1200.6	1181.9
60°	1062.5	1085.2	1106.6	1086.7	1072.4
62.5°	955.0	974.6	993.0	974.0	960.5
65°	846.3	863.6	878.8	861.2	846.9
67.5°	738.3	752.9	766.9	748.8	733.9
70°	630.2	642.8	655.6	637.0	623.2
72.5°	523.6	534.7	546.1	528.0	516.0
75°	420.0	429.6	438.9	422.9	413.5
77.5°	321.0	329.1	335.6	325.3	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)