

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: P489175

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-40-120-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: P489175
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-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

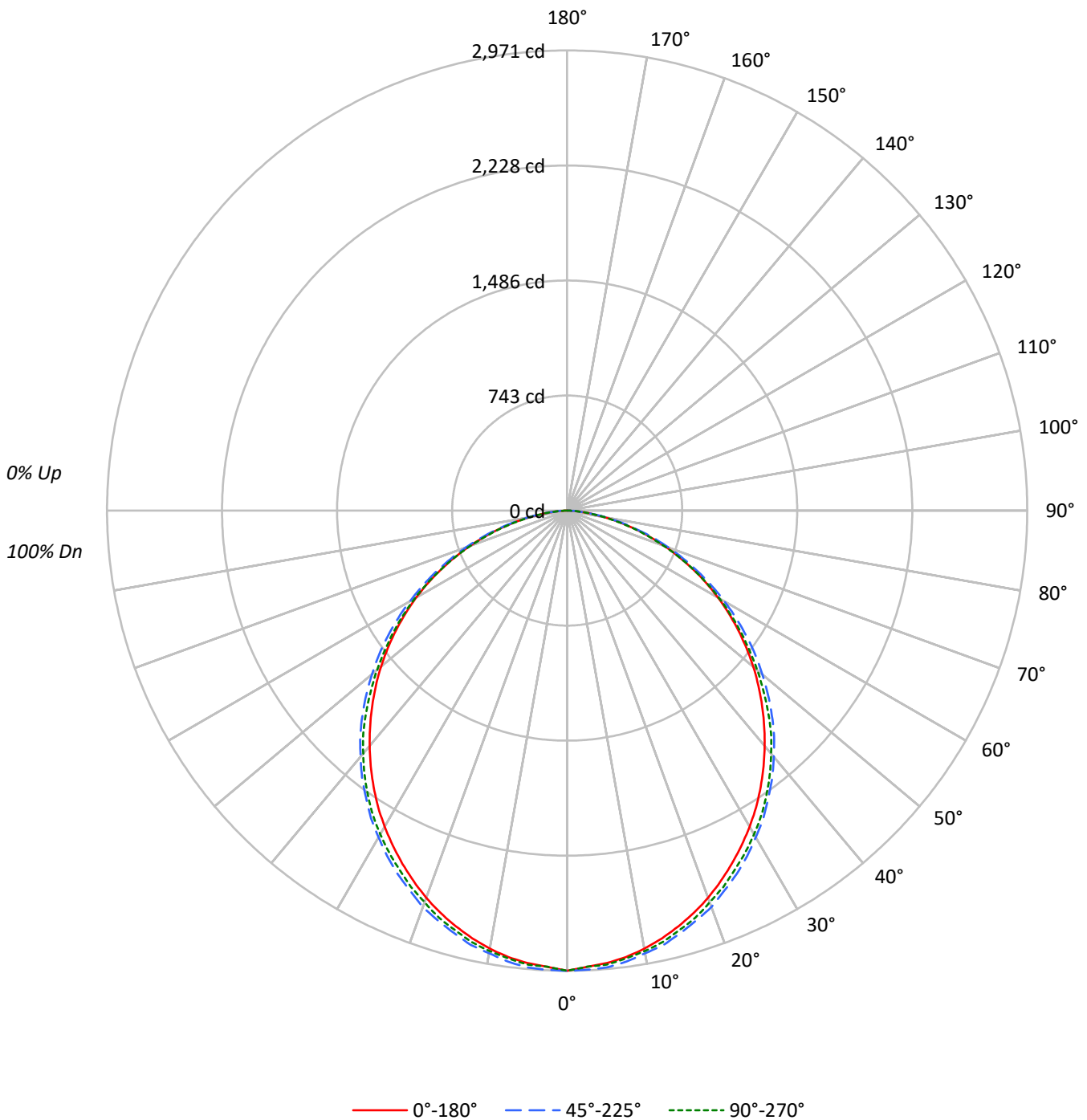
Lumens per Lamp: N/A
Luminaire Lumens: 7812.1 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P489175

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4STD-40-120-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°	7996	7996	7996
5°	7922	7997	7947
10°	7850	7929	7891
15°	7741	7866	7811
20°	7619	7800	7706
25°	7470	7687	7599
30°	7320	7568	7499
35°	7155	7438	7369
40°	6969	7290	7197
45°	6773	7115	6981
50°	6570	6887	6707
55°	6331	6628	6424
60°	6062	6313	6118
65°	5713	5932	5717
70°	5257	5468	5198
75°	4629	4838	4558
80°	3761	3924	3718
85°	2618	2791	2723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.8	3.6
10°-20°	793.0	10.2
20°-30°	1182.8	15.1
30°-40°	1401.6	17.9
40°-50°	1418.2	18.2
50°-60°	1238.6	15.9
60°-70°	905.1	11.6
70°-80°	481.6	6.2
80°-90°	111.3	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°	2255.7	28.9
0°-40°	3657.3	46.8
0°-60°	6314.1	80.8
0°-90°	7812.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7812.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2971	2971	2971	2971	2971	
5°	2933	2938	2960	2967	2942	278
15°	2779	2797	2824	2840	2804	783
25°	2516	2547	2589	2599	2559	1159
35°	2178	2212	2264	2280	2243	1362
45°	1780	1811	1870	1871	1834	1373
55°	1350	1377	1413	1392	1369	1206
65°	897	916	932	913	898	888
75°	445	455	465	448	438	473
85°	85	86	90	91	88	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2971.4	2971.4	2971.4	2971.4	2971.4
2.5°	2948.2	2957.8	2967.7	2972.1	2947.9
5°	2932.7	2938.3	2960.3	2967.1	2942.0
7.5°	2907.4	2915.7	2937.1	2940.2	2916.0
10°	2872.7	2887.5	2901.8	2917.3	2887.9
12.5°	2828.4	2848.5	2872.7	2875.5	2853.2
15°	2778.6	2797.1	2823.5	2840.5	2803.6
17.5°	2722.8	2740.8	2774.9	2778.0	2755.7
20°	2660.6	2682.9	2723.8	2730.9	2691.0
22.5°	2590.0	2620.1	2654.1	2660.9	2631.5
25°	2516.0	2547.0	2589.1	2598.7	2559.4
27.5°	2438.6	2468.4	2515.7	2522.5	2489.4
30°	2355.7	2383.5	2435.5	2447.0	2413.3
32.5°	2271.5	2299.3	2356.9	2366.5	2333.7
35°	2178.0	2212.0	2264.3	2280.1	2243.3
37.5°	2082.6	2115.7	2175.2	2189.4	2149.8
40°	1983.9	2016.7	2075.2	2086.9	2048.9
42.5°	1882.9	1915.7	1978.3	1980.1	1948.6
45°	1779.8	1811.4	1869.6	1871.2	1834.3
47.5°	1675.2	1707.1	1759.1	1753.2	1718.5
50°	1569.3	1599.7	1645.2	1633.4	1602.1
52.5°	1459.7	1489.1	1532.2	1513.0	1483.6
55°	1349.5	1376.7	1412.7	1392.2	1369.3
57.5°	1238.4	1265.9	1293.5	1272.7	1252.9
60°	1126.3	1150.4	1173.0	1152.0	1136.8
62.5°	1012.4	1033.1	1052.6	1032.5	1018.2
65°	897.2	915.5	931.6	913.0	897.8
67.5°	782.6	798.1	813.0	793.8	778.0
70°	668.1	681.4	695.0	675.2	660.7
72.5°	555.1	566.9	578.9	559.7	547.0
75°	445.2	455.4	465.3	448.3	438.4
77.5°	340.2	348.9	355.7	344.9	335.3
80°	242.7	249.2	253.2	248.9	239.9
82.5°	156.0	160.7	162.8	162.5	156.7
85°	84.8	86.4	90.4	91.3	88.2
87.5°	32.8	35.0	35.9	38.7	35.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)