

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: P488733

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-50-120-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: P488733
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-12-4-INS-A19156-LD4-3LO-50-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

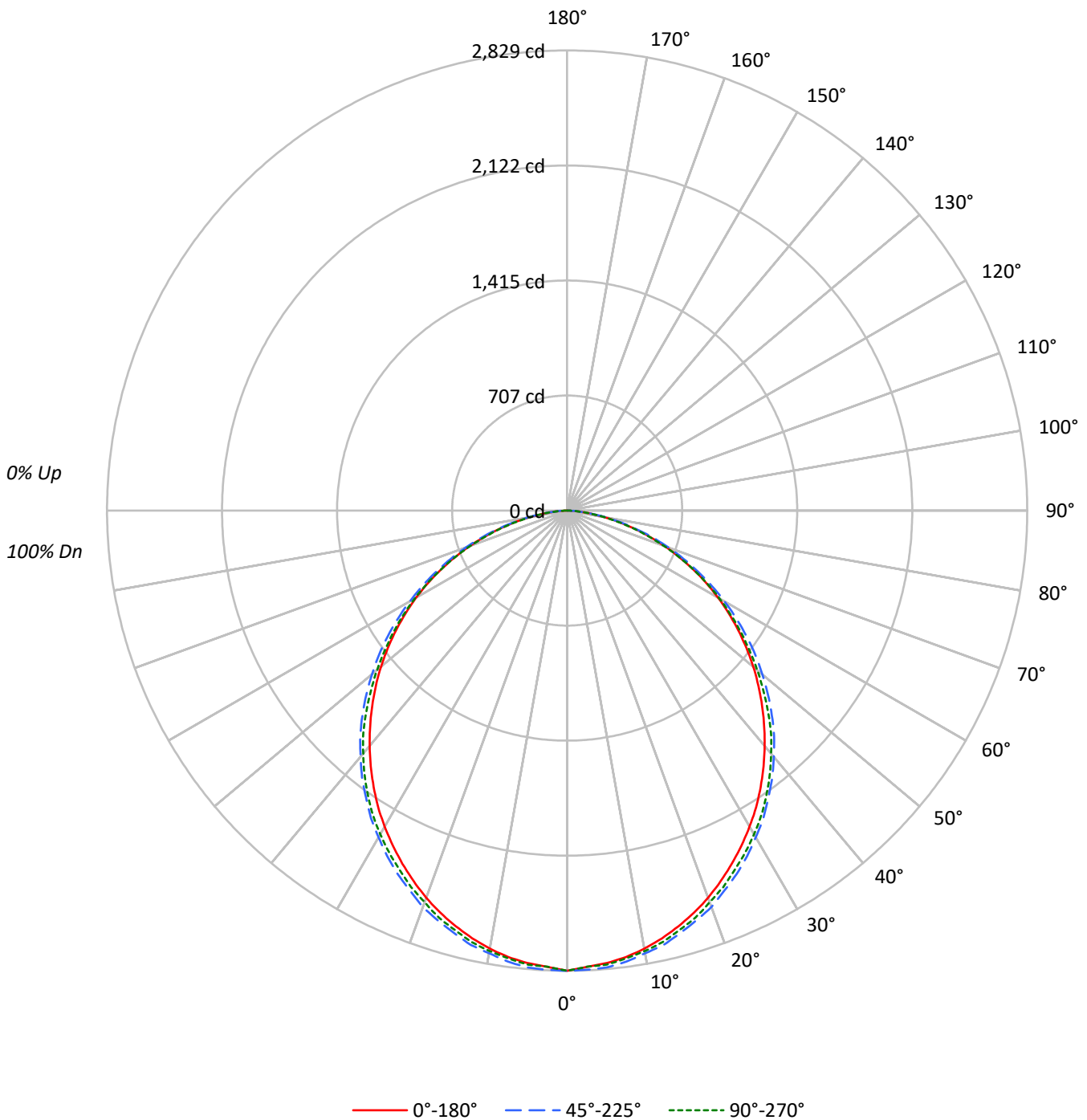
Lumens per Lamp: N/A
Luminaire Lumens: 7438.6 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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: P488733

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3LO-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P488733

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3LO-50-120-EDD

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°	7614	7614	7614
5°	7543	7614	7567
10°	7474	7550	7514
15°	7371	7490	7437
20°	7255	7427	7338
25°	7113	7320	7236
30°	6970	7206	7140
35°	6813	7083	7017
40°	6636	6941	6853
45°	6449	6775	6647
50°	6256	6558	6386
55°	6029	6311	6117
60°	5772	6012	5826
65°	5440	5648	5443
70°	5006	5207	4950
75°	4407	4607	4340
80°	3581	3736	3541
85°	2495	2658	2594



TEST NUMBER: P488733

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3LO-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.5	3.6
10°-20°	755.1	10.2
20°-30°	1126.2	15.1
30°-40°	1334.6	17.9
40°-50°	1350.4	18.2
50°-60°	1179.4	15.9
60°-70°	861.8	11.6
70°-80°	458.6	6.2
80°-90°	106.0	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°	2147.8	28.9
0°-40°	3482.4	46.8
0°-60°	6012.2	80.8
0°-90°	7438.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7438.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2829	2829	2829	2829	2829	
5°	2792	2798	2819	2825	2801	265
15°	2646	2663	2688	2705	2670	746
25°	2396	2425	2465	2474	2437	1104
35°	2074	2106	2156	2171	2136	1297
45°	1695	1725	1780	1782	1747	1307
55°	1285	1311	1345	1326	1304	1149
65°	854	872	887	869	855	845
75°	424	434	443	427	417	451
85°	81	82	86	87	84	102
90°	0	0	0	0	0	



TEST NUMBER: P488733

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3LO-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2829.4	2829.4	2829.4	2829.4	2829.4
2.5°	2807.3	2816.4	2825.8	2830.0	2807.0
5°	2792.5	2797.8	2818.8	2825.3	2801.4
7.5°	2768.4	2776.3	2796.7	2799.6	2776.6
10°	2735.3	2749.5	2763.1	2777.8	2749.8
12.5°	2693.2	2712.3	2735.3	2738.0	2716.8
15°	2645.7	2663.4	2688.5	2704.7	2669.6
17.5°	2592.7	2609.8	2642.2	2645.1	2623.9
20°	2533.4	2554.6	2593.5	2600.3	2562.3
22.5°	2466.2	2494.8	2527.2	2533.7	2505.7
25°	2395.7	2425.2	2465.3	2474.5	2437.0
27.5°	2322.0	2350.3	2395.5	2401.9	2370.4
30°	2243.0	2269.6	2319.1	2330.0	2297.9
32.5°	2162.9	2189.4	2244.2	2253.4	2222.1
35°	2073.8	2106.3	2156.1	2171.1	2136.0
37.5°	1983.0	2014.6	2071.2	2084.7	2047.0
40°	1889.0	1920.3	1976.0	1987.2	1950.9
42.5°	1792.9	1824.2	1883.7	1885.5	1855.4
45°	1694.7	1724.8	1780.2	1781.7	1746.6
47.5°	1595.1	1625.5	1675.0	1669.4	1636.4
50°	1494.3	1523.2	1566.5	1555.3	1525.5
52.5°	1389.9	1417.9	1458.9	1440.6	1412.6
55°	1285.0	1310.9	1345.1	1325.7	1303.8
57.5°	1179.2	1205.4	1231.6	1211.9	1193.0
60°	1072.4	1095.4	1117.0	1096.9	1082.5
62.5°	964.0	983.7	1002.3	983.1	969.6
65°	854.3	871.7	887.0	869.3	854.9
67.5°	745.2	760.0	774.1	755.8	740.8
70°	636.2	648.8	661.8	642.9	629.1
72.5°	528.6	539.8	551.3	533.0	520.9
75°	423.9	433.6	443.1	426.9	417.4
77.5°	324.0	332.2	338.7	328.4	319.3
80°	231.1	237.3	241.1	237.0	228.5
82.5°	148.6	153.0	155.1	154.8	149.2
85°	80.8	82.2	86.1	87.0	84.0
87.5°	31.2	33.3	34.2	36.8	33.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)