

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: P488710

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-20-120-EDD-90**

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: P488710
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-LD4-3HI-20-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

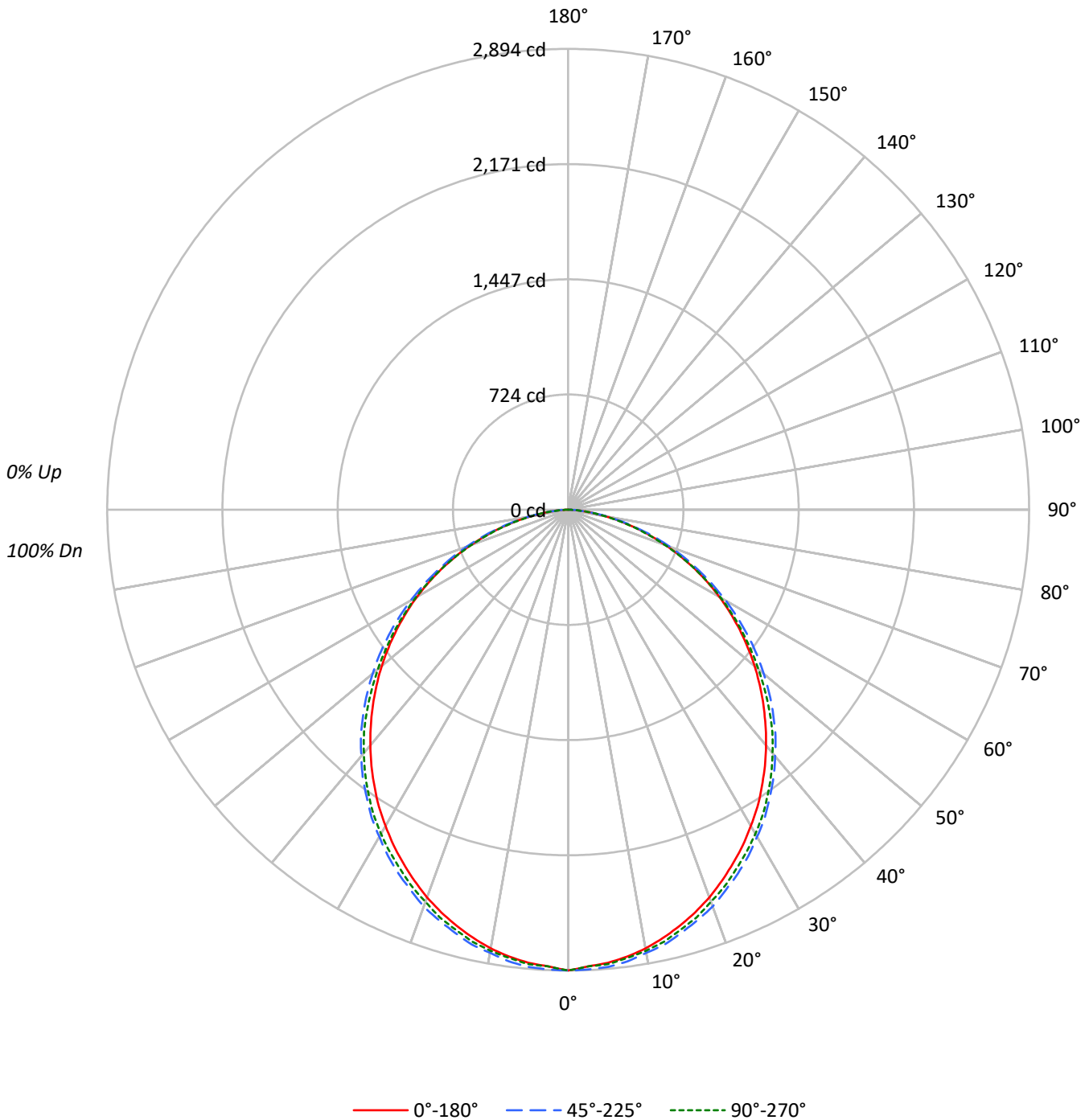
Lumens per Lamp: N/A
Luminaire Lumens: 7607.4 lumens
Efficiency: N/A
Efficacy: 58.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	7787	7787	7787
5°	7715	7787	7739
10°	7644	7721	7684
15°	7538	7660	7606
20°	7420	7596	7504
25°	7275	7486	7400
30°	7128	7370	7302
35°	6967	7244	7176
40°	6786	7099	7009
45°	6596	6929	6798
50°	6398	6707	6531
55°	6165	6454	6256
60°	5903	6148	5958
65°	5563	5776	5567
70°	5119	5325	5062
75°	4507	4711	4439
80°	3663	3821	3620
85°	2550	2717	2652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.5	3.6
10°-20°	772.3	10.2
20°-30°	1151.8	15.1
30°-40°	1364.9	17.9
40°-50°	1381.0	18.2
50°-60°	1206.1	15.9
60°-70°	881.4	11.6
70°-80°	469.0	6.2
80°-90°	108.4	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°	2196.6	28.9
0°-40°	3561.4	46.8
0°-60°	6148.6	80.8
0°-90°	7607.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7607.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2894	2894	2894	2894	2894	
5°	2856	2861	2883	2889	2865	271
15°	2706	2724	2750	2766	2730	763
25°	2450	2480	2521	2531	2492	1129
35°	2121	2154	2205	2220	2184	1326
45°	1733	1764	1821	1822	1786	1337
55°	1314	1341	1376	1356	1333	1175
65°	874	892	907	889	874	865
75°	434	444	453	436	427	461
85°	83	84	88	89	86	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	2871.0	2880.3	2890.0	2894.2	2870.7
5°	2855.9	2861.3	2882.7	2889.4	2864.9
7.5°	2831.2	2839.3	2860.1	2863.1	2839.6
10°	2797.4	2811.9	2825.8	2840.8	2812.2
12.5°	2754.3	2773.9	2797.4	2800.1	2778.4
15°	2705.8	2723.9	2749.5	2766.1	2730.2
17.5°	2651.5	2669.0	2702.1	2705.2	2683.5
20°	2590.9	2612.6	2652.4	2659.3	2620.4
22.5°	2522.2	2551.4	2584.6	2591.2	2562.6
25°	2450.1	2480.3	2521.3	2530.6	2492.3
27.5°	2374.7	2403.7	2449.8	2456.4	2424.2
30°	2293.9	2321.1	2371.7	2382.9	2350.0
32.5°	2211.9	2239.1	2295.2	2304.5	2272.5
35°	2120.9	2154.1	2205.0	2220.4	2184.5
37.5°	2028.0	2060.3	2118.2	2132.1	2093.5
40°	1931.9	1963.8	2020.8	2032.3	1995.2
42.5°	1833.6	1865.5	1926.4	1928.3	1897.5
45°	1733.2	1763.9	1820.6	1822.1	1786.3
47.5°	1631.3	1662.3	1713.0	1707.3	1673.5
50°	1528.2	1557.7	1602.1	1590.6	1560.1
52.5°	1421.5	1450.1	1492.0	1473.3	1444.7
55°	1314.1	1340.7	1375.6	1355.7	1333.4
57.5°	1205.9	1232.7	1259.6	1239.4	1220.1
60°	1096.8	1120.3	1142.3	1121.8	1107.0
62.5°	985.8	1006.0	1025.0	1005.4	991.6
65°	873.7	891.5	907.1	889.1	874.3
67.5°	762.1	777.2	791.7	773.0	757.6
70°	650.6	663.6	676.8	657.5	643.4
72.5°	540.5	552.0	563.8	545.1	532.7
75°	433.5	443.5	453.1	436.5	426.9
77.5°	331.3	339.8	346.4	335.8	326.5
80°	236.4	242.7	246.6	242.4	233.6
82.5°	151.9	156.5	158.6	158.3	152.5
85°	82.6	84.1	88.0	88.9	85.9
87.5°	32.0	34.1	35.0	37.7	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)