

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: P489115

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3HI-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: P489115
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-LD4-3HI-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

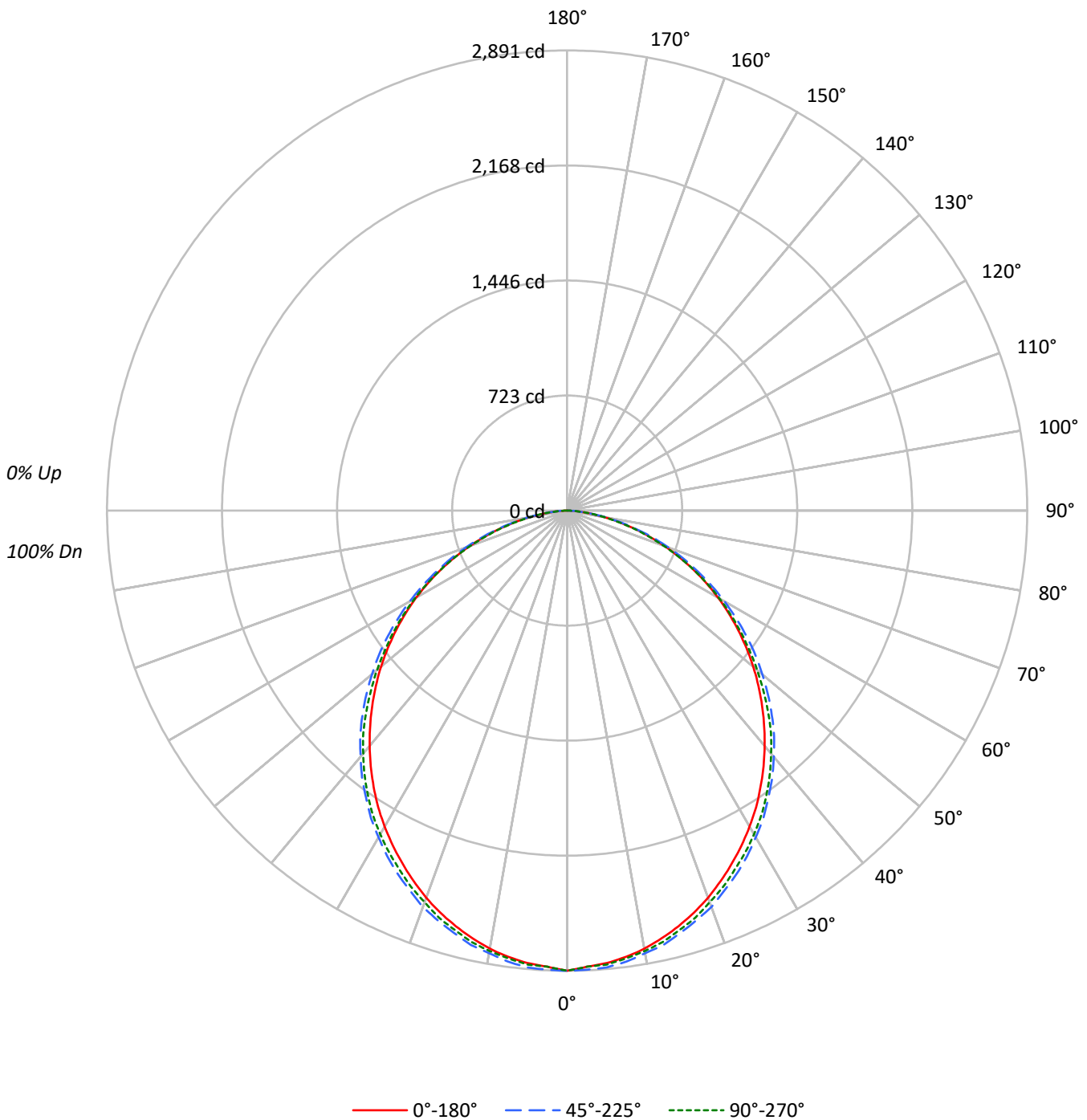
Lumens per Lamp: N/A
Luminaire Lumens: 7601.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	7780	7780	7780
5°	7708	7780	7732
10°	7638	7715	7678
15°	7532	7653	7600
20°	7413	7589	7498
25°	7269	7480	7394
30°	7122	7363	7296
35°	6961	7238	7170
40°	6780	7093	7003
45°	6590	6923	6792
50°	6392	6701	6526
55°	6160	6449	6251
60°	5898	6142	5953
65°	5558	5771	5563
70°	5114	5320	5057
75°	4504	4707	4434
80°	3660	3818	3617
85°	2547	2717	2649



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.3	3.6
10°-20°	771.6	10.2
20°-30°	1150.8	15.1
30°-40°	1363.7	17.9
40°-50°	1379.9	18.2
50°-60°	1205.1	15.9
60°-70°	880.7	11.6
70°-80°	468.6	6.2
80°-90°	108.3	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°	2194.7	28.9
0°-40°	3558.4	46.8
0°-60°	6143.5	80.8
0°-90°	7601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7601.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2891	2891	2891	2891	2891	
5°	2854	2859	2880	2887	2862	271
15°	2704	2722	2747	2764	2728	762
25°	2448	2478	2519	2528	2490	1128
35°	2119	2152	2203	2218	2183	1325
45°	1732	1762	1819	1821	1785	1336
55°	1313	1340	1374	1355	1332	1174
65°	873	891	906	888	874	864
75°	433	443	453	436	426	461
85°	82	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°	2891.1	2891.1	2891.1	2891.1	2891.1
2.5°	2868.6	2877.9	2887.5	2891.8	2868.3
5°	2853.5	2858.9	2880.3	2886.9	2862.5
7.5°	2828.8	2836.9	2857.7	2860.7	2837.2
10°	2795.1	2809.5	2823.4	2838.4	2809.8
12.5°	2752.0	2771.6	2795.1	2797.8	2776.1
15°	2703.5	2721.6	2747.2	2763.7	2727.9
17.5°	2649.3	2666.7	2699.9	2702.9	2681.2
20°	2588.7	2610.4	2650.2	2657.1	2618.2
22.5°	2520.0	2549.3	2582.4	2589.0	2560.4
25°	2448.0	2478.2	2519.1	2528.5	2490.2
27.5°	2372.7	2401.7	2447.7	2454.4	2422.1
30°	2292.0	2319.1	2369.7	2380.9	2348.0
32.5°	2210.1	2237.2	2293.2	2302.6	2270.6
35°	2119.1	2152.2	2203.2	2218.5	2182.7
37.5°	2026.3	2058.6	2116.4	2130.3	2091.7
40°	1930.2	1962.2	2019.1	2030.6	1993.5
42.5°	1832.0	1864.0	1924.8	1926.6	1895.9
45°	1731.7	1762.5	1819.1	1820.6	1784.8
47.5°	1629.9	1661.0	1711.6	1705.8	1672.1
50°	1526.9	1556.4	1600.7	1589.3	1558.8
52.5°	1420.3	1448.9	1490.8	1472.1	1443.5
55°	1313.0	1339.5	1374.5	1354.6	1332.3
57.5°	1204.9	1231.7	1258.5	1238.3	1219.1
60°	1095.9	1119.3	1141.3	1120.9	1106.1
62.5°	985.0	1005.2	1024.2	1004.6	990.7
65°	872.9	890.7	906.4	888.3	873.6
67.5°	761.5	776.6	791.0	772.3	757.0
70°	650.0	663.0	676.2	657.0	642.8
72.5°	540.1	551.5	563.3	544.6	532.3
75°	433.2	443.1	452.7	436.2	426.5
77.5°	331.0	339.5	346.1	335.6	326.2
80°	236.2	242.5	246.4	242.2	233.4
82.5°	151.8	156.3	158.4	158.1	152.4
85°	82.5	84.0	88.0	88.9	85.8
87.5°	31.9	34.0	34.9	37.7	34.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)