

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: P489612

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2HI-27-120-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: P489612
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-24-4-INS-A19156-LD4-2HI-27-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

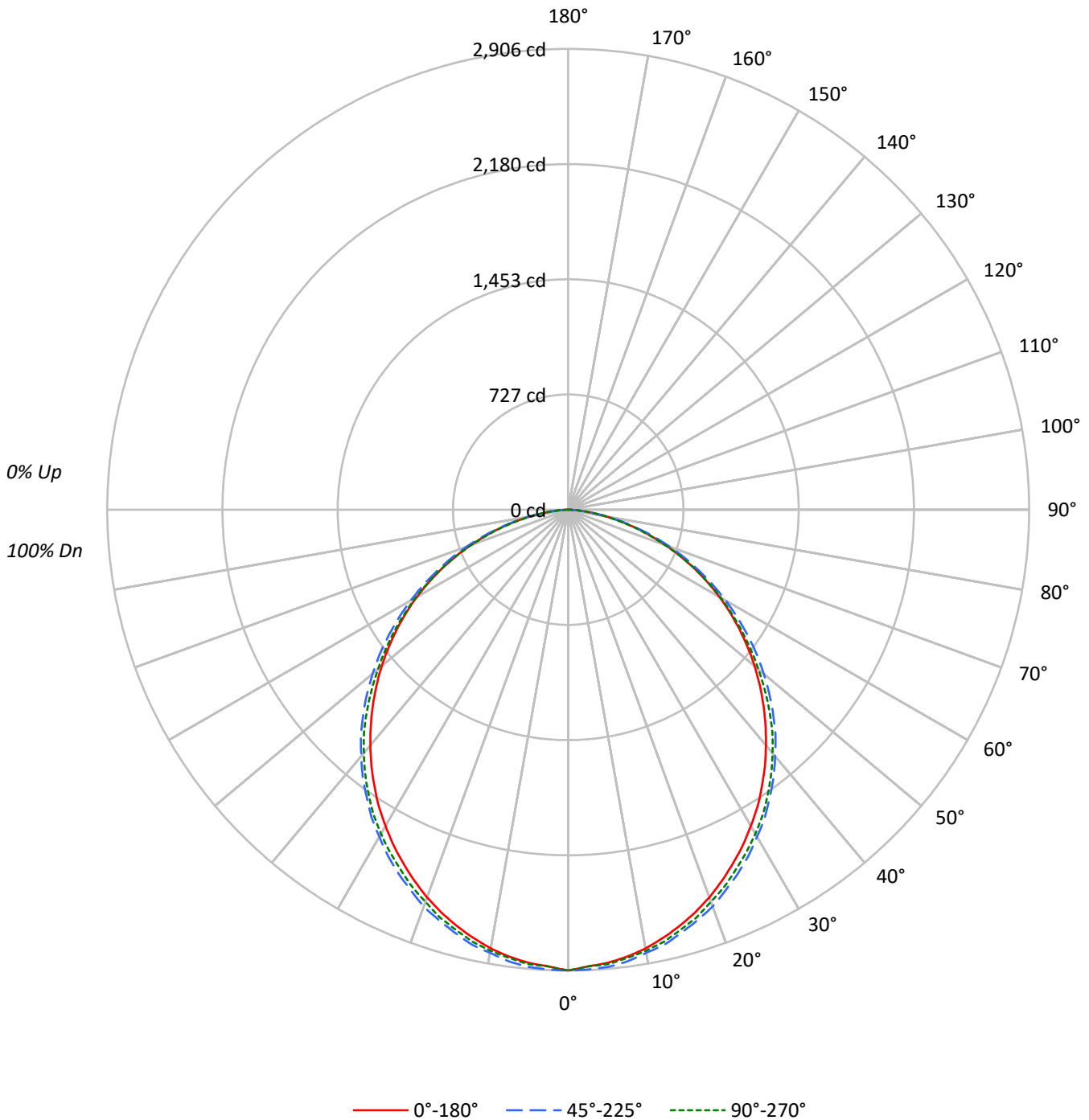
Lumens per Lamp: N/A
Luminaire Lumens: 7638.6 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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: P489612

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-27-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489612

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-27-120-EDD-90

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°	3909	3909	3909
5°	3873	3910	3885
10°	3838	3876	3858
15°	3785	3846	3819
20°	3725	3813	3767
25°	3652	3758	3715
30°	3579	3700	3666
35°	3498	3637	3603
40°	3407	3564	3519
45°	3311	3479	3413
50°	3212	3367	3279
55°	3095	3240	3141
60°	2964	3087	2991
65°	2793	2900	2795
70°	2570	2674	2541
75°	2263	2365	2228
80°	1839	1918	1818
85°	1280	1365	1332



TEST NUMBER: P489612

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.6	3.6
10°-20°	775.4	10.2
20°-30°	1156.5	15.1
30°-40°	1370.5	17.9
40°-50°	1386.7	18.2
50°-60°	1211.1	15.9
60°-70°	885.0	11.6
70°-80°	470.9	6.2
80°-90°	108.8	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°	2205.6	28.9
0°-40°	3576.1	46.8
0°-60°	6173.9	80.8
0°-90°	7638.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7638.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2906	2906	2906	2906	2906	
5°	2868	2873	2895	2901	2877	272
15°	2717	2735	2761	2777	2741	766
25°	2460	2490	2532	2541	2502	1133
35°	2130	2163	2214	2230	2194	1332
45°	1740	1771	1828	1830	1794	1343
55°	1320	1346	1381	1361	1339	1180
65°	877	895	911	893	878	868
75°	435	445	455	438	429	463
85°	83	84	88	89	86	105
90°	0	0	0	0	0	



TEST NUMBER: P489612

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2905.5	2905.5	2905.5	2905.5	2905.5
2.5°	2882.7	2892.1	2901.8	2906.1	2882.4
5°	2867.6	2873.1	2894.6	2901.2	2876.7
7.5°	2842.8	2851.0	2871.9	2874.9	2851.3
10°	2808.9	2823.4	2837.3	2852.5	2823.7
12.5°	2765.6	2785.3	2808.9	2811.6	2789.8
15°	2716.9	2735.0	2760.8	2777.4	2741.4
17.5°	2662.4	2679.9	2713.2	2716.3	2694.5
20°	2601.5	2623.3	2663.3	2670.2	2631.2
22.5°	2532.5	2561.9	2595.2	2601.8	2573.1
25°	2460.2	2490.4	2531.6	2541.0	2502.5
27.5°	2384.5	2413.5	2459.9	2466.5	2434.1
30°	2303.4	2330.6	2381.5	2392.7	2359.7
32.5°	2221.0	2248.3	2304.6	2313.9	2281.9
35°	2129.6	2162.9	2214.1	2229.5	2193.5
37.5°	2036.4	2068.7	2126.9	2140.8	2102.0
40°	1939.8	1971.9	2029.1	2040.6	2003.4
42.5°	1841.1	1873.2	1934.3	1936.2	1905.3
45°	1740.3	1771.2	1828.1	1829.6	1793.6
47.5°	1638.0	1669.2	1720.0	1714.3	1680.4
50°	1534.5	1564.1	1608.6	1597.1	1566.5
52.5°	1427.3	1456.1	1498.1	1479.4	1450.6
55°	1319.5	1346.2	1381.3	1361.3	1338.9
57.5°	1210.9	1237.8	1264.7	1244.5	1225.1
60°	1101.3	1124.9	1147.0	1126.4	1111.6
62.5°	989.9	1010.2	1029.2	1009.6	995.6
65°	877.3	895.1	910.9	892.7	877.9
67.5°	765.3	780.4	794.9	776.2	760.7
70°	653.3	666.3	679.6	660.2	646.0
72.5°	542.8	554.3	566.1	547.3	534.9
75°	435.3	445.3	455.0	438.3	428.6
77.5°	332.7	341.2	347.8	337.2	327.8
80°	237.3	243.7	247.6	243.4	234.6
82.5°	152.6	157.1	159.2	158.9	153.2
85°	82.9	84.5	88.4	89.3	86.3
87.5°	32.1	34.2	35.1	37.8	34.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)