

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: P489694

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-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: P489694
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-LD4-4LO-20-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

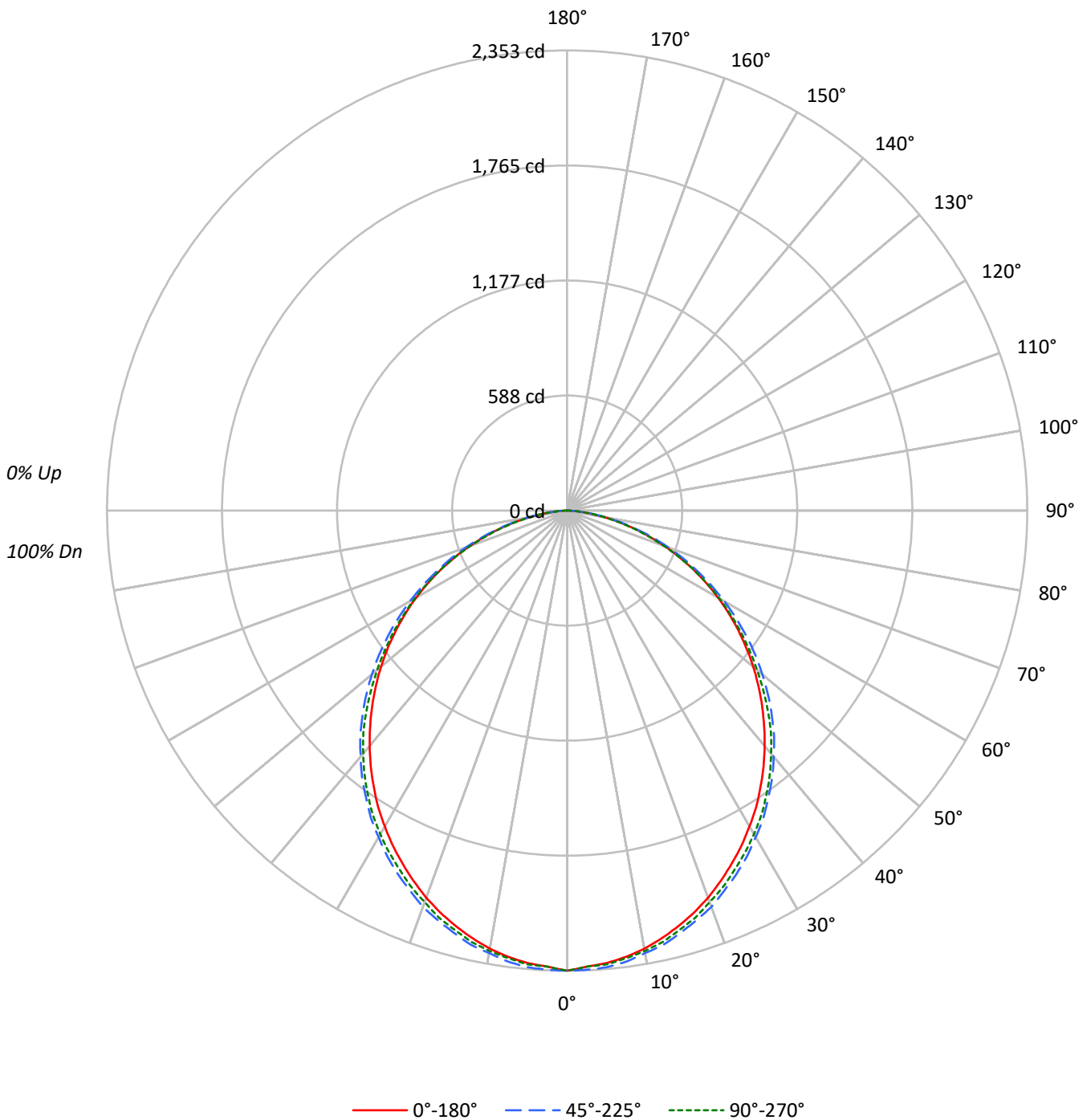
Lumens per Lamp: N/A
Luminaire Lumens: 6185.4 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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: P489694

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-20-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489694

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-20-120-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°	3166	3166	3166
5°	3136	3166	3146
10°	3108	3139	3124
15°	3064	3114	3092
20°	3016	3088	3051
25°	2957	3043	3008
30°	2898	2996	2969
35°	2833	2945	2917
40°	2759	2886	2849
45°	2681	2817	2764
50°	2601	2727	2655
55°	2506	2624	2543
60°	2400	2499	2422
65°	2262	2348	2263
70°	2081	2165	2058
75°	1832	1915	1804
80°	1489	1554	1472
85°	1037	1105	1079



TEST NUMBER: P489694

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-20-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.6	3.6
10°-20°	627.9	10.2
20°-30°	936.5	15.1
30°-40°	1109.7	17.9
40°-50°	1122.9	18.2
50°-60°	980.7	15.9
60°-70°	716.6	11.6
70°-80°	381.3	6.2
80°-90°	88.1	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°	1786.0	28.9
0°-40°	2895.7	46.8
0°-60°	4999.3	80.8
0°-90°	6185.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6185.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2353	2353	2353	2353	2353	
5°	2322	2326	2344	2349	2329	220
15°	2200	2215	2236	2249	2220	620
25°	1992	2017	2050	2058	2026	918
35°	1724	1751	1793	1805	1776	1078
45°	1409	1434	1480	1482	1452	1087
55°	1068	1090	1118	1102	1084	955
65°	710	725	738	723	711	703
75°	352	361	368	355	347	375
85°	67	68	72	72	70	85
90°	0	0	0	0	0	



TEST NUMBER: P489694

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-20-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2352.7	2352.7	2352.7	2352.7	2352.7
2.5°	2334.3	2341.9	2349.8	2353.2	2334.1
5°	2322.1	2326.5	2343.9	2349.3	2329.4
7.5°	2302.0	2308.6	2325.5	2327.9	2308.8
10°	2274.5	2286.3	2297.6	2309.8	2286.5
12.5°	2239.5	2255.4	2274.5	2276.7	2259.1
15°	2200.0	2214.7	2235.5	2249.0	2219.8
17.5°	2155.9	2170.1	2197.1	2199.5	2181.9
20°	2106.6	2124.2	2156.6	2162.2	2130.6
22.5°	2050.7	2074.5	2101.5	2106.8	2083.6
25°	1992.1	2016.6	2050.0	2057.6	2026.4
27.5°	1930.8	1954.4	1991.9	1997.3	1971.0
30°	1865.2	1887.2	1928.4	1937.5	1910.7
32.5°	1798.5	1820.5	1866.1	1873.7	1847.7
35°	1724.5	1751.4	1792.8	1805.3	1776.2
37.5°	1649.0	1675.2	1722.2	1733.5	1702.1
40°	1570.8	1596.7	1643.1	1652.4	1622.2
42.5°	1490.8	1516.8	1566.3	1567.8	1542.8
45°	1409.2	1434.2	1480.3	1481.5	1452.4
47.5°	1326.4	1351.6	1392.8	1388.1	1360.7
50°	1242.5	1266.6	1302.6	1293.3	1268.5
52.5°	1155.8	1179.0	1213.1	1197.9	1174.6
55°	1068.5	1090.1	1118.5	1102.3	1084.2
57.5°	980.5	1002.3	1024.1	1007.7	992.0
60°	891.8	910.9	928.8	912.1	900.1
62.5°	801.6	818.0	833.4	817.5	806.2
65°	710.4	724.8	737.6	722.9	710.9
67.5°	619.7	631.9	643.7	628.5	616.0
70°	529.0	539.5	550.3	534.6	523.1
72.5°	439.5	448.8	458.4	443.2	433.1
75°	352.5	360.6	368.4	354.9	347.1
77.5°	269.4	276.3	281.6	273.1	265.5
80°	192.2	197.3	200.5	197.1	190.0
82.5°	123.5	127.2	128.9	128.7	124.0
85°	67.2	68.4	71.6	72.3	69.9
87.5°	26.0	27.7	28.4	30.6	28.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)