

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: P488703

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2STD-30-120-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: P488703
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-LD4-2STD-30-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

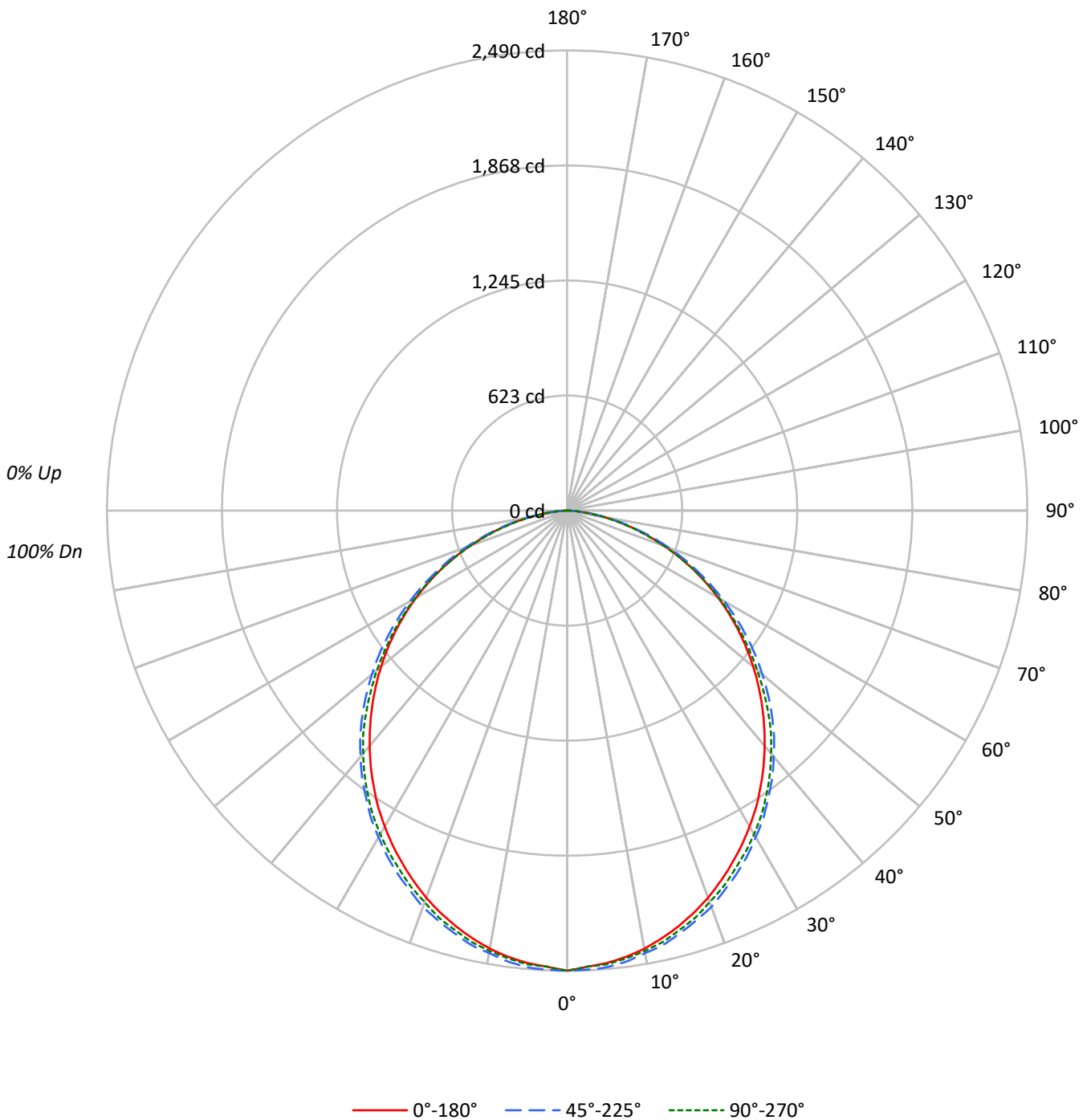
Lumens per Lamp: N/A
Luminaire Lumens: 6546.2 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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: P488703

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-2STD-30-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P488703

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-2STD-30-120-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°	6700	6700	6700
5°	6638	6701	6659
10°	6578	6644	6612
15°	6486	6591	6545
20°	6385	6536	6457
25°	6260	6442	6368
30°	6133	6342	6284
35°	5995	6233	6175
40°	5840	6108	6031
45°	5676	5962	5850
50°	5505	5771	5620
55°	5305	5553	5383
60°	5079	5290	5127
65°	4787	4970	4790
70°	4404	4582	4356
75°	3879	4054	3819
80°	3152	3288	3116
85°	2195	2340	2282



TEST NUMBER: P488703

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-2STD-30-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.5	3.6
10°-20°	664.5	10.2
20°-30°	991.1	15.1
30°-40°	1174.5	17.9
40°-50°	1188.4	18.2
50°-60°	1037.9	15.9
60°-70°	758.4	11.6
70°-80°	403.6	6.2
80°-90°	93.3	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°	1890.2	28.9
0°-40°	3064.6	46.8
0°-60°	5290.9	80.8
0°-90°	6546.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6546.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2490	2490	2490	2490	2490	
5°	2458	2462	2481	2486	2465	233
15°	2328	2344	2366	2380	2349	656
25°	2108	2134	2170	2178	2145	971
35°	1825	1854	1897	1911	1880	1141
45°	1491	1518	1567	1568	1537	1151
55°	1131	1154	1184	1167	1147	1011
65°	752	767	781	765	752	744
75°	373	382	390	376	367	397
85°	71	72	76	76	74	90
90°	0	0	0	0	0	



TEST NUMBER: P488703

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-2STD-30-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2489.9	2489.9	2489.9	2489.9	2489.9
2.5°	2470.5	2478.5	2486.8	2490.5	2470.2
5°	2457.5	2462.2	2480.6	2486.3	2465.3
7.5°	2436.2	2443.2	2461.1	2463.7	2443.5
10°	2407.2	2419.6	2431.6	2444.5	2419.9
12.5°	2370.1	2387.0	2407.2	2409.5	2390.8
15°	2328.3	2343.9	2365.9	2380.2	2349.3
17.5°	2281.6	2296.7	2325.2	2327.8	2309.1
20°	2229.5	2248.2	2282.4	2288.4	2254.9
22.5°	2170.3	2195.5	2224.0	2229.7	2205.1
25°	2108.3	2134.3	2169.6	2177.6	2144.6
27.5°	2043.5	2068.4	2108.1	2113.8	2086.0
30°	1973.9	1997.3	2040.9	2050.5	2022.2
32.5°	1903.4	1926.7	1975.0	1983.0	1955.5
35°	1825.0	1853.6	1897.4	1910.7	1879.8
37.5°	1745.1	1772.9	1822.7	1834.6	1801.4
40°	1662.4	1689.9	1738.9	1748.8	1716.9
42.5°	1577.8	1605.3	1657.7	1659.3	1632.8
45°	1491.4	1517.9	1566.7	1568.0	1537.1
47.5°	1403.7	1430.5	1474.0	1469.1	1440.1
50°	1315.0	1340.4	1378.6	1368.7	1342.5
52.5°	1223.2	1247.8	1283.9	1267.8	1243.2
55°	1130.8	1153.7	1183.7	1166.6	1147.4
57.5°	1037.7	1060.8	1083.9	1066.5	1049.9
60°	943.8	964.0	983.0	965.3	952.6
62.5°	848.3	865.7	882.0	865.2	853.2
65°	751.8	767.1	780.6	765.0	752.3
67.5°	655.8	668.8	681.2	665.2	651.9
70°	559.8	571.0	582.4	565.8	553.6
72.5°	465.1	475.0	485.1	469.0	458.4
75°	373.1	381.6	389.9	375.6	367.3
77.5°	285.1	292.4	298.1	289.0	281.0
80°	203.4	208.8	212.2	208.6	201.1
82.5°	130.7	134.6	136.5	136.2	131.3
85°	71.1	72.4	75.8	76.5	73.9
87.5°	27.5	29.3	30.1	32.4	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)