

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: P488725

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-27-120-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: P488725
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-LD4-3LO-27-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

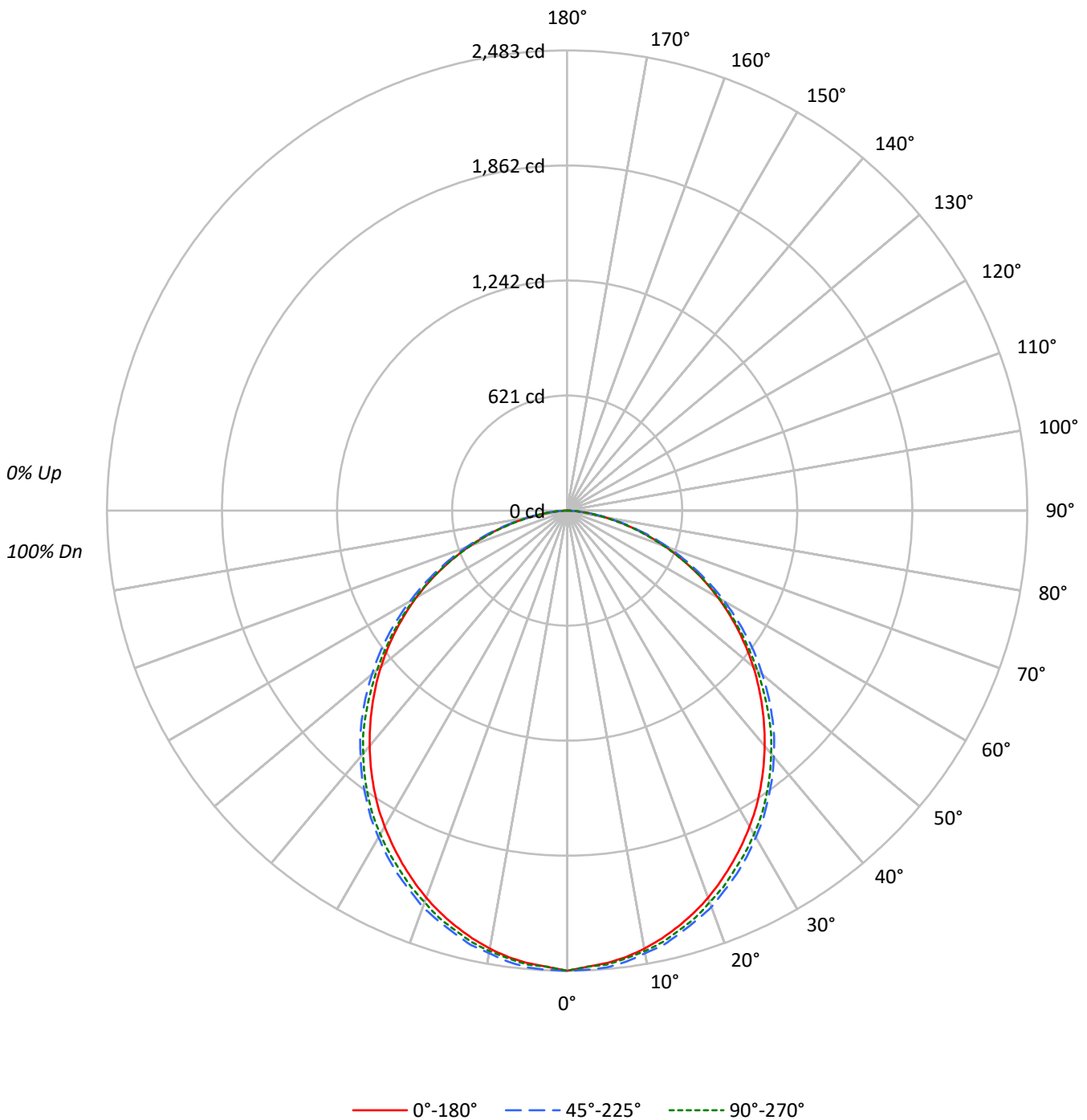
Lumens per Lamp: N/A
Luminaire Lumens: 6528.8 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	6683	6683	6683
5°	6621	6683	6642
10°	6560	6627	6595
15°	6469	6574	6528
20°	6368	6519	6440
25°	6243	6425	6351
30°	6117	6325	6267
35°	5979	6217	6159
40°	5824	6092	6015
45°	5661	5946	5834
50°	5490	5756	5605
55°	5291	5539	5369
60°	5066	5276	5113
65°	4774	4957	4777
70°	4393	4570	4344
75°	3869	4043	3810
80°	3143	3279	3107
85°	2189	2334	2276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.9	3.6
10°-20°	662.8	10.2
20°-30°	988.5	15.1
30°-40°	1171.4	17.9
40°-50°	1185.2	18.2
50°-60°	1035.1	15.9
60°-70°	756.4	11.6
70°-80°	402.5	6.2
80°-90°	93.0	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°	1885.1	28.9
0°-40°	3056.5	46.8
0°-60°	5276.9	80.8
0°-90°	6528.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6528.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2483	2483	2483	2483	2483	
5°	2451	2456	2474	2480	2459	232
15°	2322	2338	2360	2374	2343	655
25°	2103	2129	2164	2172	2139	969
35°	1820	1849	1892	1906	1875	1138
45°	1488	1514	1562	1564	1533	1148
55°	1128	1151	1181	1164	1144	1008
65°	750	765	778	763	750	742
75°	372	381	389	375	366	396
85°	71	72	76	76	74	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2483.3	2483.3	2483.3	2483.3	2483.3
2.5°	2463.9	2471.9	2480.2	2483.8	2463.7
5°	2451.0	2455.6	2474.0	2479.7	2458.7
7.5°	2429.8	2436.8	2454.6	2457.2	2437.0
10°	2400.8	2413.2	2425.1	2438.0	2413.5
12.5°	2363.8	2380.6	2400.8	2403.1	2384.5
15°	2322.1	2337.7	2359.6	2373.9	2343.1
17.5°	2275.6	2290.6	2319.0	2321.6	2303.0
20°	2223.6	2242.2	2276.3	2282.3	2248.9
22.5°	2164.6	2189.7	2218.1	2223.8	2199.2
25°	2102.7	2128.6	2163.8	2171.8	2138.9
27.5°	2038.0	2062.9	2102.5	2108.2	2080.5
30°	1968.7	1992.0	2035.5	2045.0	2016.8
32.5°	1898.3	1921.6	1969.7	1977.8	1950.3
35°	1820.2	1848.7	1892.4	1905.6	1874.8
37.5°	1740.5	1768.2	1817.9	1829.8	1796.6
40°	1658.0	1685.4	1734.3	1744.1	1712.3
42.5°	1573.6	1601.0	1653.3	1654.9	1628.5
45°	1487.5	1513.8	1562.5	1563.8	1533.0
47.5°	1400.0	1426.7	1470.1	1465.2	1436.2
50°	1311.5	1336.9	1374.9	1365.1	1338.9
52.5°	1219.9	1244.5	1280.5	1264.4	1239.9
55°	1127.8	1150.6	1180.6	1163.5	1144.4
57.5°	1034.9	1058.0	1081.0	1063.7	1047.1
60°	941.3	961.5	980.3	962.7	950.1
62.5°	846.1	863.4	879.7	862.9	851.0
65°	749.8	765.1	778.5	763.0	750.3
67.5°	654.1	667.0	679.4	663.4	650.2
70°	558.3	569.5	580.9	564.3	552.1
72.5°	463.9	473.7	483.8	467.8	457.2
75°	372.1	380.6	388.9	374.6	366.4
77.5°	284.3	291.6	297.3	288.2	280.2
80°	202.8	208.3	211.6	208.0	200.5
82.5°	130.4	134.3	136.1	135.8	130.9
85°	70.9	72.2	75.6	76.3	73.7
87.5°	27.4	29.2	30.0	32.3	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)