

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: P488709

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2STD-50-120-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: P488709
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-50-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

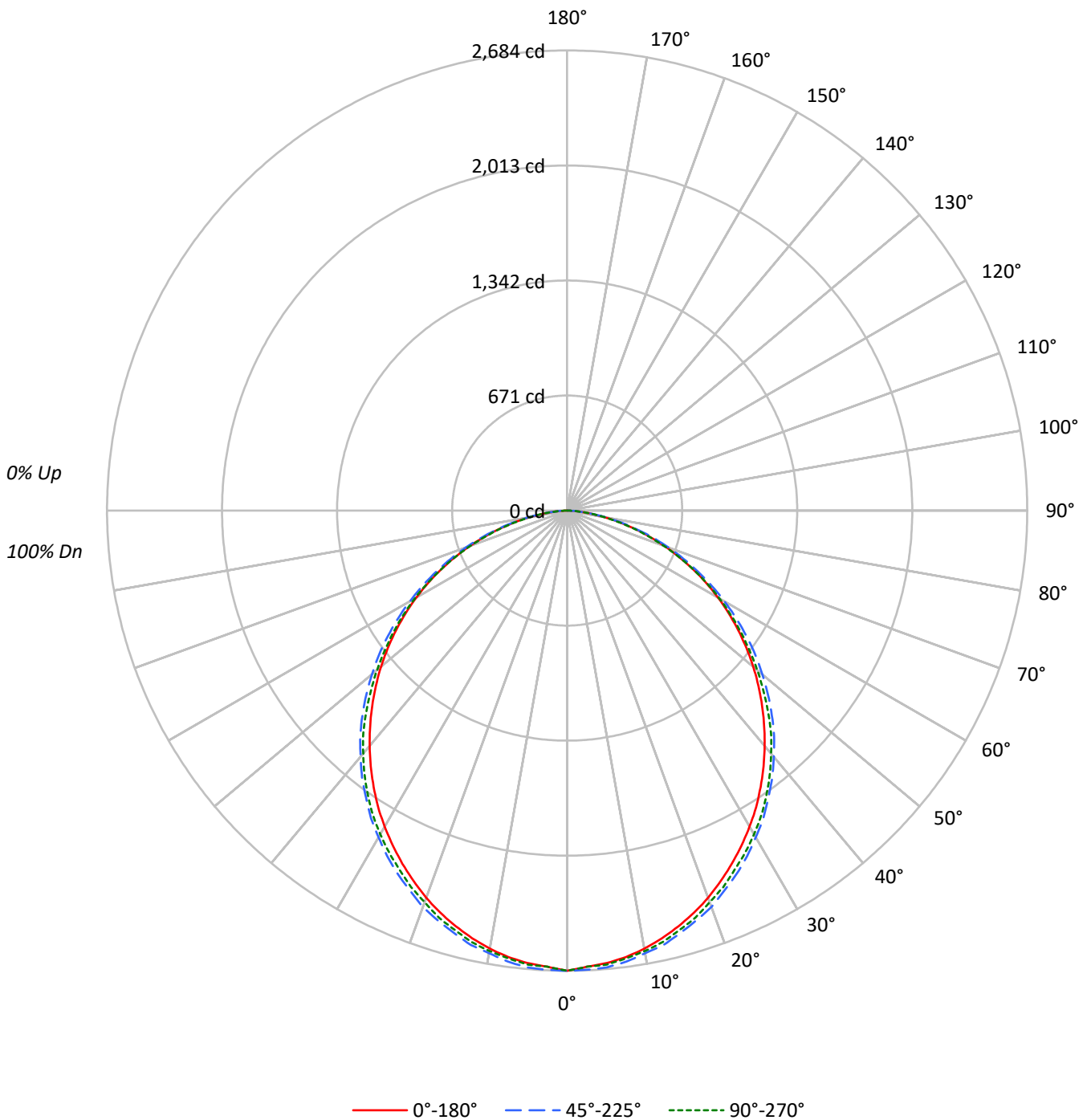
Lumens per Lamp: N/A
Luminaire Lumens: 7057.1 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	7223	7223	7223
5°	7156	7224	7179
10°	7091	7163	7129
15°	6993	7106	7056
20°	6883	7046	6961
25°	6749	6945	6865
30°	6612	6837	6774
35°	6463	6720	6657
40°	6295	6585	6502
45°	6119	6427	6306
50°	5935	6222	6059
55°	5720	5987	5803
60°	5476	5703	5527
65°	5161	5358	5164
70°	4748	4940	4696
75°	4182	4370	4117
80°	3398	3546	3358
85°	2365	2523	2461



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.8	3.6
10°-20°	716.4	10.2
20°-30°	1068.5	15.1
30°-40°	1266.1	17.9
40°-50°	1281.1	18.2
50°-60°	1118.9	15.9
60°-70°	817.6	11.6
70°-80°	435.1	6.2
80°-90°	100.5	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°	2037.7	28.9
0°-40°	3303.8	46.8
0°-60°	5703.9	80.8
0°-90°	7057.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7057.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2684	2684	2684	2684	2684	
5°	2649	2654	2674	2680	2658	251
15°	2510	2527	2551	2566	2533	708
25°	2273	2301	2339	2348	2312	1047
35°	1968	1998	2046	2060	2026	1230
45°	1608	1636	1689	1690	1657	1240
55°	1219	1244	1276	1258	1237	1090
65°	810	827	842	825	811	802
75°	402	411	420	405	396	428
85°	77	78	82	82	80	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2684.3	2684.3	2684.3	2684.3	2684.3
2.5°	2663.3	2672.0	2680.9	2684.8	2663.0
5°	2649.3	2654.3	2674.2	2680.4	2657.7
7.5°	2626.4	2633.9	2653.2	2656.0	2634.2
10°	2595.1	2608.5	2621.3	2635.3	2608.8
12.5°	2555.1	2573.2	2595.1	2597.6	2577.4
15°	2510.0	2526.8	2550.6	2566.0	2532.7
17.5°	2459.7	2475.9	2506.7	2509.5	2489.3
20°	2403.5	2423.6	2460.5	2467.0	2430.9
22.5°	2339.7	2366.8	2397.6	2403.8	2377.2
25°	2272.9	2300.8	2338.9	2347.5	2312.0
27.5°	2203.0	2229.8	2272.6	2278.7	2248.8
30°	2128.0	2153.2	2200.2	2210.5	2180.0
32.5°	2051.9	2077.1	2129.1	2137.8	2108.2
35°	1967.5	1998.2	2045.5	2059.8	2026.5
37.5°	1881.3	1911.3	1965.0	1977.8	1942.0
40°	1792.1	1821.8	1874.6	1885.3	1850.9
42.5°	1701.0	1730.6	1787.1	1788.8	1760.2
45°	1607.8	1636.3	1688.9	1690.3	1657.0
47.5°	1513.3	1542.1	1589.1	1583.8	1552.4
50°	1417.6	1445.1	1486.2	1475.5	1447.3
52.5°	1318.6	1345.2	1384.1	1366.7	1340.2
55°	1219.1	1243.7	1276.1	1257.7	1237.0
57.5°	1118.7	1143.6	1168.5	1149.7	1131.8
60°	1017.4	1039.3	1059.7	1040.7	1026.9
62.5°	914.5	933.3	950.9	932.7	919.8
65°	810.5	827.0	841.5	824.7	811.0
67.5°	707.0	721.0	734.4	717.1	702.8
70°	603.5	615.6	627.9	610.0	596.8
72.5°	501.4	512.1	523.0	505.6	494.2
75°	402.2	411.4	420.3	405.0	396.0
77.5°	307.4	315.2	321.3	311.6	302.9
80°	219.3	225.1	228.8	224.9	216.7
82.5°	141.0	145.1	147.1	146.8	141.5
85°	76.6	78.0	81.7	82.5	79.7
87.5°	29.6	31.6	32.4	35.0	32.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)