

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: P489638

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-30-120-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: P489638
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-LD4-2STD-30-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

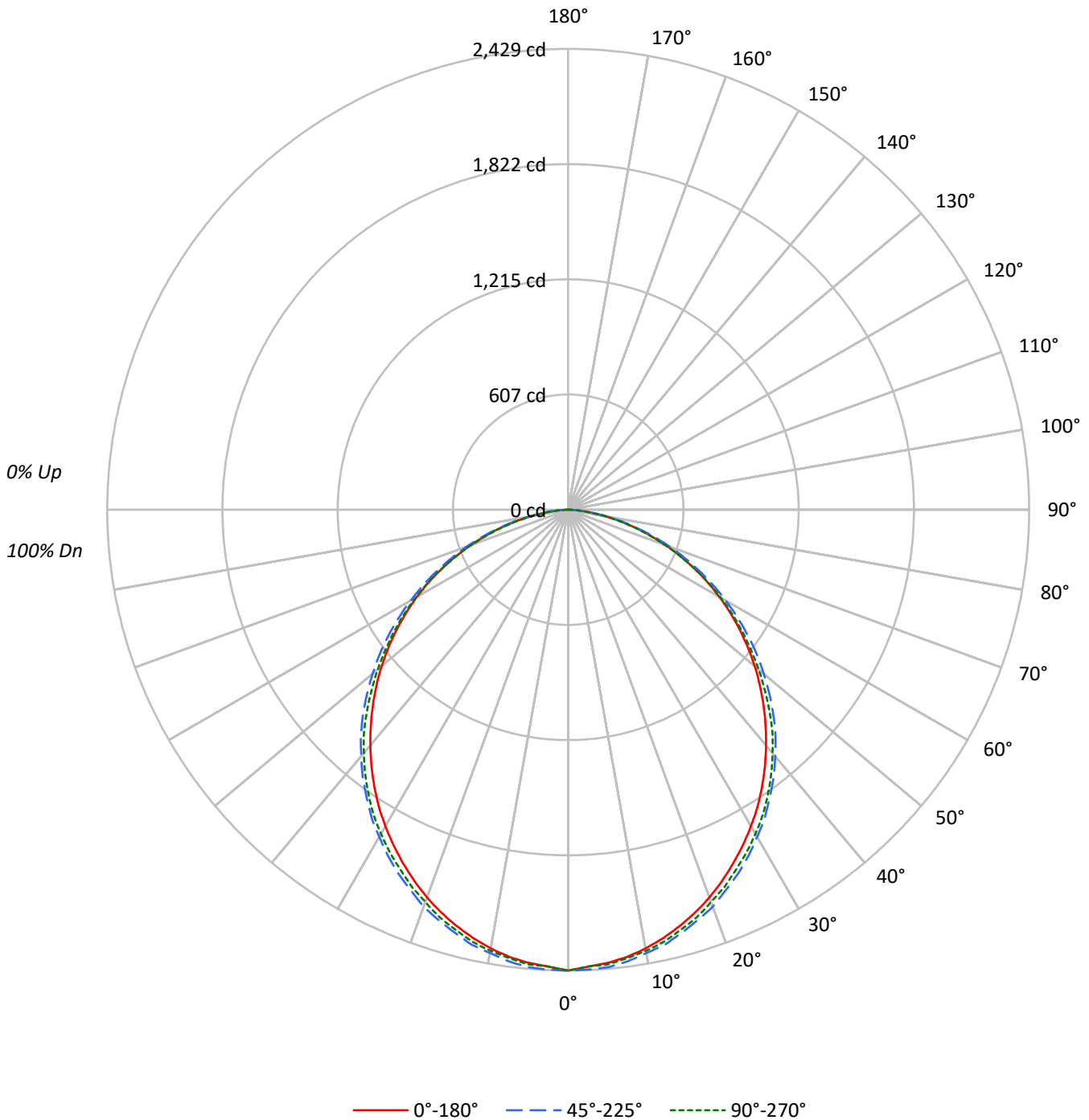
Lumens per Lamp: N/A
Luminaire Lumens: 6387.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3269	3269	3269
5°	3238	3269	3249
10°	3209	3241	3226
15°	3164	3215	3193
20°	3115	3189	3150
25°	3054	3143	3106
30°	2992	3094	3065
35°	2925	3041	3013
40°	2849	2980	2942
45°	2769	2909	2854
50°	2686	2815	2742
55°	2588	2709	2626
60°	2478	2581	2501
65°	2335	2425	2337
70°	2149	2235	2125
75°	1892	1978	1863
80°	1537	1604	1520
85°	1071	1141	1113



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.8	3.6
10°-20°	648.4	10.2
20°-30°	967.0	15.1
30°-40°	1145.9	17.9
40°-50°	1159.5	18.2
50°-60°	1012.7	15.9
60°-70°	740.0	11.6
70°-80°	393.7	6.2
80°-90°	91.0	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°	1844.2	28.9
0°-40°	2990.1	46.8
0°-60°	5162.3	80.8
0°-90°	6387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6387.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2429	2429	2429	2429	2429	
5°	2398	2402	2420	2426	2405	227
15°	2272	2287	2308	2322	2292	640
25°	2057	2082	2117	2125	2092	948
35°	1781	1808	1851	1864	1834	1114
45°	1455	1481	1529	1530	1500	1123
55°	1103	1126	1155	1138	1120	986
65°	734	748	762	746	734	726
75°	364	372	380	366	358	387
85°	69	71	74	75	72	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2429.4	2429.4	2429.4	2429.4	2429.4
2.5°	2410.4	2418.3	2426.4	2429.9	2410.2
5°	2397.7	2402.3	2420.3	2425.8	2405.3
7.5°	2377.0	2383.8	2401.3	2403.8	2384.1
10°	2348.6	2360.8	2372.4	2385.1	2361.0
12.5°	2312.4	2328.9	2348.6	2350.9	2332.7
15°	2271.7	2286.9	2308.4	2322.3	2292.2
17.5°	2226.1	2240.8	2268.7	2271.2	2253.0
20°	2175.3	2193.5	2226.9	2232.7	2200.1
22.5°	2117.6	2142.1	2169.9	2175.5	2151.5
25°	2057.1	2082.4	2116.8	2124.6	2092.5
27.5°	1993.8	2018.1	2056.8	2062.4	2035.3
30°	1925.9	1948.7	1991.2	2000.6	1973.0
32.5°	1857.1	1879.9	1927.0	1934.8	1908.0
35°	1780.7	1808.5	1851.3	1864.2	1834.1
37.5°	1702.7	1729.8	1778.4	1790.0	1757.6
40°	1622.0	1648.8	1696.6	1706.2	1675.1
42.5°	1539.4	1566.3	1617.4	1618.9	1593.1
45°	1455.2	1481.0	1528.6	1529.8	1499.7
47.5°	1369.6	1395.7	1438.2	1433.4	1405.0
50°	1283.0	1307.8	1345.0	1335.4	1309.9
52.5°	1193.4	1217.5	1252.7	1237.0	1212.9
55°	1103.3	1125.6	1155.0	1138.3	1119.5
57.5°	1012.5	1035.0	1057.5	1040.6	1024.4
60°	920.8	940.6	959.0	941.8	929.4
62.5°	827.7	844.6	860.6	844.1	832.5
65°	733.5	748.5	761.6	746.4	734.0
67.5°	639.9	652.5	664.7	649.0	636.1
70°	546.2	557.1	568.2	552.0	540.1
72.5°	453.8	463.5	473.3	457.6	447.3
75°	364.0	372.3	380.4	366.5	358.4
77.5°	278.2	285.3	290.8	282.0	274.1
80°	198.4	203.8	207.0	203.5	196.2
82.5°	127.6	131.4	133.1	132.9	128.1
85°	69.4	70.6	73.9	74.7	72.1
87.5°	26.8	28.6	29.4	31.6	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)