

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: P489636

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-27-120-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: P489636  
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-27-120-EDD-90  
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

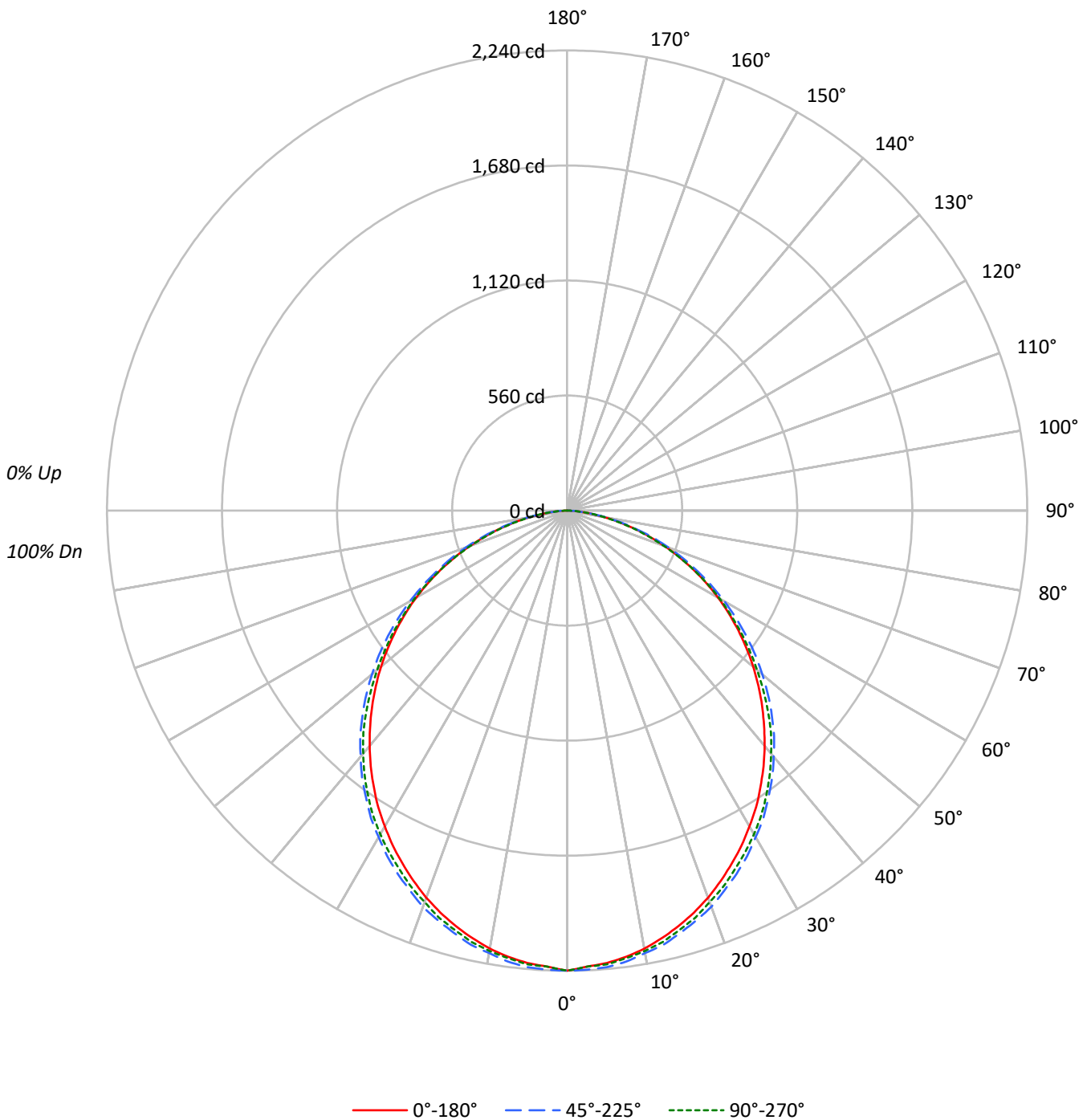
Lumens per Lamp: N/A  
Luminaire Lumens: 5888.1 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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°	3013	3013	3013
5°	2986	3014	2995
10°	2958	2988	2974
15°	2917	2964	2944
20°	2871	2939	2904
25°	2815	2897	2864
30°	2758	2852	2826
35°	2696	2803	2777
40°	2626	2747	2712
45°	2553	2681	2631
50°	2476	2596	2528
55°	2386	2498	2421
60°	2284	2379	2306
65°	2153	2235	2154
70°	1981	2061	1959
75°	1744	1823	1718
80°	1417	1479	1401
85°	986	1051	1027



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.9	3.6
10°-20°	597.7	10.2
20°-30°	891.5	15.1
30°-40°	1056.4	17.9
40°-50°	1068.9	18.2
50°-60°	933.5	15.9
60°-70°	682.2	11.6
70°-80°	363.0	6.2
80°-90°	83.9	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°	1700.1	28.9
0°-40°	2756.5	46.8
0°-60°	4759.0	80.8
0°-90°	5888.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5888.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2240	2240	2240	2240	2240	
5°	2210	2215	2231	2236	2218	210
15°	2094	2108	2128	2141	2113	590
25°	1896	1920	1951	1959	1929	874
35°	1642	1667	1707	1719	1691	1027
45°	1342	1365	1409	1410	1383	1035
55°	1017	1038	1065	1049	1032	909
65°	676	690	702	688	677	669
75°	336	343	351	338	330	357
85°	64	65	68	69	66	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2239.6	2239.6	2239.6	2239.6	2239.6
2.5°	2222.1	2229.4	2236.8	2240.1	2221.9
5°	2210.5	2214.7	2231.2	2236.4	2217.5
7.5°	2191.3	2197.6	2213.7	2216.1	2197.9
10°	2165.2	2176.4	2187.1	2198.8	2176.6
12.5°	2131.8	2147.0	2165.2	2167.3	2150.5
15°	2094.3	2108.3	2128.1	2140.9	2113.2
17.5°	2052.2	2065.8	2091.5	2093.8	2077.0
20°	2005.3	2022.1	2052.9	2058.3	2028.2
22.5°	1952.1	1974.8	2000.4	2005.6	1983.4
25°	1896.4	1919.7	1951.4	1958.7	1929.0
27.5°	1838.0	1860.4	1896.1	1901.3	1876.3
30°	1775.5	1796.5	1835.7	1844.3	1818.9
32.5°	1712.0	1733.0	1776.4	1783.7	1758.9
35°	1641.6	1667.2	1706.7	1718.6	1690.8
37.5°	1569.7	1594.7	1639.5	1650.2	1620.3
40°	1495.3	1520.0	1564.1	1573.0	1544.3
42.5°	1419.2	1443.9	1491.1	1492.5	1468.7
45°	1341.5	1365.3	1409.2	1410.3	1382.6
47.5°	1262.6	1286.7	1325.9	1321.4	1295.3
50°	1182.8	1205.7	1240.0	1231.1	1207.5
52.5°	1100.2	1122.4	1154.8	1140.3	1118.2
55°	1017.1	1037.7	1064.7	1049.3	1032.1
57.5°	933.4	954.1	974.9	959.3	944.3
60°	848.9	867.1	884.1	868.3	856.8
62.5°	763.0	778.7	793.4	778.2	767.5
65°	676.2	690.0	702.1	688.1	676.7
67.5°	589.9	601.6	612.8	598.3	586.4
70°	503.6	513.6	523.9	508.9	498.0
72.5°	418.4	427.3	436.4	421.9	412.3
75°	335.5	343.2	350.7	337.9	330.4
77.5°	256.4	263.0	268.1	259.9	252.7
80°	182.9	187.8	190.9	187.6	180.8
82.5°	117.6	121.1	122.7	122.5	118.1
85°	63.9	65.1	68.1	68.8	66.5
87.5°	24.7	26.4	27.1	29.2	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)