

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: P489143

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4HI-20-120-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: P489143
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-24-2-INS-A19156-LD4-4HI-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

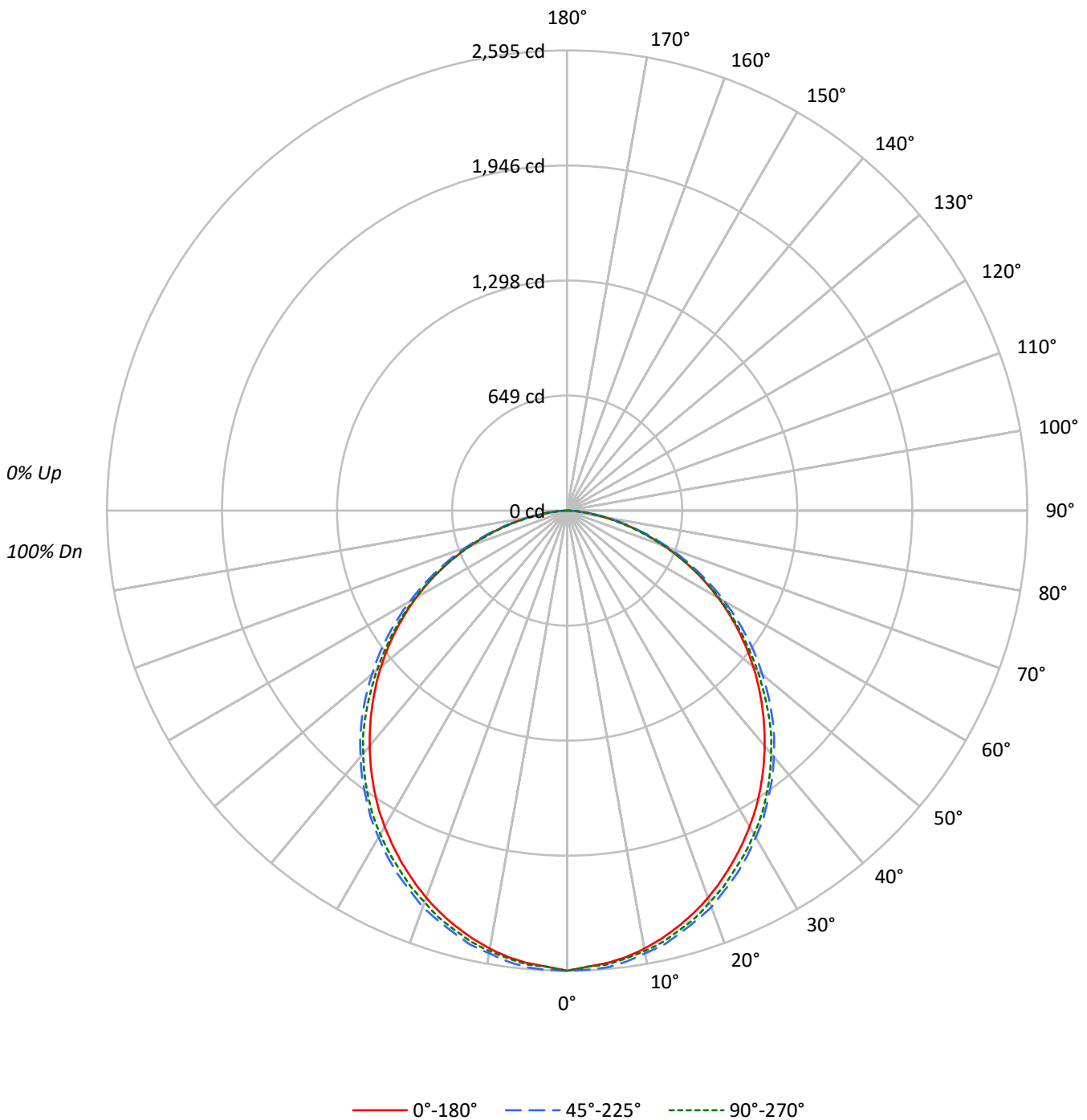
Lumens per Lamp: N/A
Luminaire Lumens: 6823.3 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6984	6984	6984
5°	6919	6984	6941
10°	6856	6925	6892
15°	6761	6870	6822
20°	6655	6813	6731
25°	6525	6714	6637
30°	6393	6610	6550
35°	6249	6497	6436
40°	6087	6367	6286
45°	5916	6215	6097
50°	5738	6015	5858
55°	5530	5789	5611
60°	5294	5514	5344
65°	4989	5181	4993
70°	4591	4777	4540
75°	4042	4225	3981
80°	3285	3428	3248
85°	2288	2439	2381



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.4	3.6
10°-20°	692.7	10.2
20°-30°	1033.1	15.1
30°-40°	1224.2	17.9
40°-50°	1238.7	18.2
50°-60°	1081.8	15.9
60°-70°	790.6	11.6
70°-80°	420.6	6.2
80°-90°	97.2	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°	1970.2	28.9
0°-40°	3194.4	46.8
0°-60°	5514.9	80.8
0°-90°	6823.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6823.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2595	2595	2595	2595	2595	
5°	2562	2566	2586	2592	2570	243
15°	2427	2443	2466	2481	2449	684
25°	2198	2225	2261	2270	2235	1012
35°	1902	1932	1978	1992	1959	1190
45°	1555	1582	1633	1634	1602	1199
55°	1179	1202	1234	1216	1196	1054
65°	784	800	814	797	784	775
75°	389	398	406	392	383	413
85°	74	75	79	80	77	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2595.3	2595.3	2595.3	2595.3	2595.3
2.5°	2575.1	2583.4	2592.1	2595.9	2574.8
5°	2561.5	2566.4	2585.6	2591.6	2569.7
7.5°	2539.4	2546.7	2565.3	2568.0	2546.9
10°	2509.1	2522.1	2534.5	2548.0	2522.3
12.5°	2470.4	2488.0	2509.1	2511.5	2492.0
15°	2426.9	2443.1	2466.1	2481.0	2448.8
17.5°	2378.2	2393.9	2423.6	2426.3	2406.9
20°	2323.9	2343.3	2379.0	2385.2	2350.4
22.5°	2262.2	2288.4	2318.2	2324.1	2298.4
25°	2197.6	2224.6	2261.4	2269.8	2235.4
27.5°	2130.0	2155.9	2197.3	2203.3	2174.3
30°	2057.5	2081.8	2127.3	2137.3	2107.8
32.5°	1984.0	2008.3	2058.6	2067.0	2038.3
35°	1902.3	1932.0	1977.7	1991.5	1959.3
37.5°	1819.0	1847.9	1899.9	1912.3	1877.7
40°	1732.8	1761.4	1812.5	1822.8	1789.5
42.5°	1644.6	1673.3	1727.9	1729.5	1701.9
45°	1554.6	1582.1	1633.0	1634.3	1602.1
47.5°	1463.2	1491.0	1536.4	1531.3	1501.0
50°	1370.7	1397.2	1436.9	1426.7	1399.3
52.5°	1275.0	1300.6	1338.2	1321.5	1295.8
55°	1178.7	1202.5	1233.9	1216.0	1196.0
57.5°	1081.6	1105.7	1129.7	1111.6	1094.3
60°	983.7	1004.8	1024.6	1006.2	992.9
62.5°	884.2	902.3	919.4	901.8	889.4
65°	783.6	799.6	813.6	797.4	784.2
67.5°	683.6	697.1	710.1	693.3	679.5
70°	583.5	595.2	607.1	589.8	577.0
72.5°	484.8	495.1	505.7	488.9	477.8
75°	388.8	397.8	406.4	391.5	382.9
77.5°	297.2	304.7	310.7	301.2	292.8
80°	212.0	217.7	221.2	217.4	209.6
82.5°	136.3	140.3	142.2	142.0	136.8
85°	74.1	75.4	79.0	79.8	77.1
87.5°	28.7	30.6	31.4	33.8	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)