

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: P489664

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3LO-35-120-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: P489664
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-LD4-3LO-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

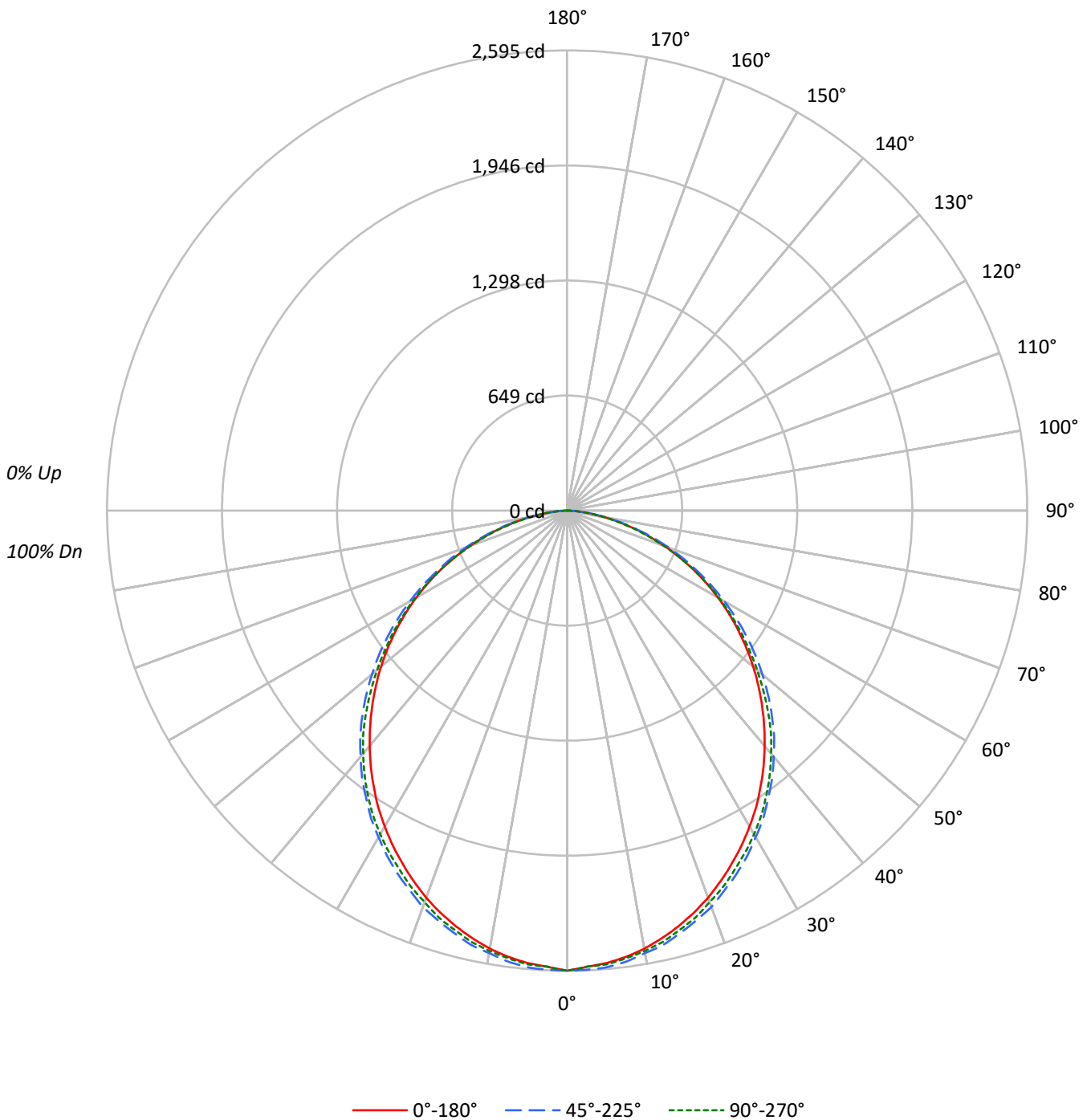
Lumens per Lamp: N/A
Luminaire Lumens: 6822.2 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P489664

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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°	3491	3491	3491
5°	3459	3492	3470
10°	3428	3462	3446
15°	3380	3435	3411
20°	3327	3406	3365
25°	3262	3357	3318
30°	3196	3304	3274
35°	3124	3248	3218
40°	3043	3183	3143
45°	2958	3107	3048
50°	2869	3007	2929
55°	2765	2894	2805
60°	2647	2757	2672
65°	2494	2590	2496
70°	2295	2388	2269
75°	2021	2113	1990
80°	1643	1714	1623
85°	1144	1218	1190



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.4	3.6
10°-20°	692.5	10.2
20°-30°	1032.9	15.1
30°-40°	1224.0	17.9
40°-50°	1238.5	18.2
50°-60°	1081.7	15.9
60°-70°	790.4	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°	1969.8	28.9
0°-40°	3193.8	46.8
0°-60°	5514.0	80.8
0°-90°	6822.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6822.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2595	2595	2595	2595	2595	
5°	2561	2566	2585	2591	2569	243
15°	2426	2443	2466	2481	2448	684
25°	2197	2224	2261	2269	2235	1012
35°	1902	1932	1977	1991	1959	1189
45°	1554	1582	1633	1634	1602	1199
55°	1178	1202	1234	1216	1196	1053
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°	2594.9	2594.9	2594.9	2594.9	2594.9
2.5°	2574.6	2583.0	2591.7	2595.5	2574.4
5°	2561.1	2566.0	2585.2	2591.1	2569.2
7.5°	2539.0	2546.3	2564.9	2567.6	2546.5
10°	2508.7	2521.7	2534.1	2547.6	2521.9
12.5°	2470.0	2487.6	2508.7	2511.1	2491.6
15°	2426.5	2442.7	2465.7	2480.6	2448.4
17.5°	2377.8	2393.5	2423.2	2425.9	2406.5
20°	2323.5	2342.9	2378.6	2384.9	2350.0
22.5°	2261.8	2288.1	2317.8	2323.8	2298.1
25°	2197.2	2224.3	2261.0	2269.4	2235.1
27.5°	2129.6	2155.6	2197.0	2202.9	2174.0
30°	2057.2	2081.5	2126.9	2136.9	2107.5
32.5°	1983.6	2008.0	2058.3	2066.6	2038.0
35°	1902.0	1931.7	1977.4	1991.2	1959.0
37.5°	1818.7	1847.6	1899.6	1912.0	1877.4
40°	1732.5	1761.1	1812.2	1822.5	1789.2
42.5°	1644.3	1673.0	1727.6	1729.2	1701.7
45°	1554.3	1581.9	1632.7	1634.1	1601.9
47.5°	1462.9	1490.8	1536.2	1531.1	1500.8
50°	1370.5	1397.0	1436.7	1426.4	1399.1
52.5°	1274.8	1300.4	1338.0	1321.3	1295.6
55°	1178.5	1202.3	1233.7	1215.8	1195.8
57.5°	1081.4	1105.5	1129.6	1111.5	1094.1
60°	983.6	1004.7	1024.4	1006.0	992.8
62.5°	884.1	902.2	919.2	901.7	889.2
65°	783.5	799.5	813.5	797.3	784.0
67.5°	683.5	697.0	710.0	693.2	679.4
70°	583.4	595.1	607.0	589.7	576.9
72.5°	484.8	495.0	505.6	488.8	477.7
75°	388.8	397.7	406.4	391.5	382.8
77.5°	297.1	304.7	310.6	301.2	292.8
80°	212.0	217.6	221.2	217.4	209.5
82.5°	136.3	140.3	142.2	141.9	136.8
85°	74.1	75.4	78.9	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)