

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: P489645

Luminaire Tested: **CLM-24-4-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: P489645
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-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

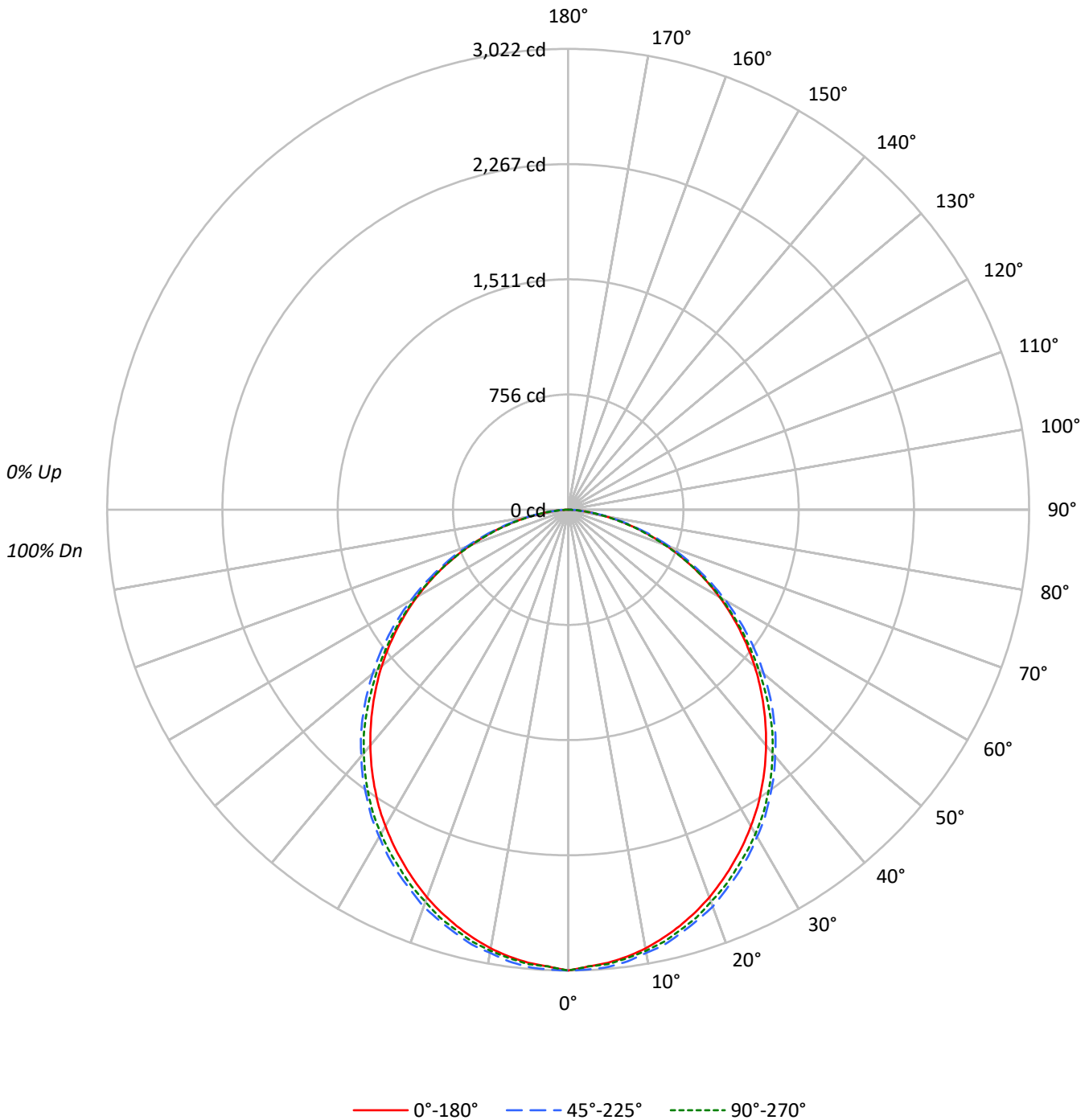
Lumens per Lamp: N/A
Luminaire Lumens: 7944.9 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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°	4066	4066	4066
5°	4028	4066	4041
10°	3991	4032	4013
15°	3936	4000	3972
20°	3874	3966	3919
25°	3799	3909	3864
30°	3722	3848	3813
35°	3638	3782	3747
40°	3544	3707	3660
45°	3444	3618	3550
50°	3341	3502	3411
55°	3219	3370	3267
60°	3082	3210	3111
65°	2905	3016	2907
70°	2673	2781	2643
75°	2354	2460	2318
80°	1912	1995	1891
85°	1332	1419	1385



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.6	3.6
10°-20°	806.5	10.2
20°-30°	1202.9	15.1
30°-40°	1425.4	17.9
40°-50°	1442.3	18.2
50°-60°	1259.7	15.9
60°-70°	920.5	11.6
70°-80°	489.8	6.2
80°-90°	113.2	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°	2294.0	28.9
0°-40°	3719.4	46.8
0°-60°	6421.4	80.8
0°-90°	7944.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7944.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3022	3022	3022	3022	3022	
5°	2983	2988	3011	3018	2992	283
15°	2826	2845	2872	2889	2851	797
25°	2559	2590	2633	2643	2603	1179
35°	2215	2250	2303	2319	2281	1385
45°	1810	1842	1901	1903	1866	1396
55°	1372	1400	1437	1416	1393	1227
65°	912	931	947	928	913	903
75°	453	463	473	456	446	481
85°	86	88	92	93	90	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3022.0	3022.0	3022.0	3022.0	3022.0
2.5°	2998.3	3008.1	3018.2	3022.6	2998.0
5°	2982.6	2988.3	3010.6	3017.5	2992.0
7.5°	2956.8	2965.3	2987.0	2990.2	2965.6
10°	2921.5	2936.6	2951.1	2966.9	2936.9
12.5°	2876.5	2897.0	2921.5	2924.4	2901.7
15°	2825.8	2844.7	2871.5	2888.8	2851.3
17.5°	2769.1	2787.4	2822.0	2825.2	2802.5
20°	2705.8	2728.5	2770.1	2777.3	2736.7
22.5°	2634.1	2664.6	2699.2	2706.2	2676.2
25°	2558.8	2590.3	2633.1	2642.9	2602.9
27.5°	2480.1	2510.3	2558.5	2565.4	2531.7
30°	2395.7	2424.1	2476.9	2488.6	2454.3
32.5°	2310.1	2338.4	2397.0	2406.7	2373.4
35°	2215.0	2249.6	2302.8	2318.9	2281.4
37.5°	2118.0	2151.7	2212.2	2226.6	2186.3
40°	2017.6	2051.0	2110.5	2122.4	2083.7
42.5°	1914.9	1948.3	2011.9	2013.8	1981.7
45°	1810.1	1842.2	1901.4	1903.0	1865.5
47.5°	1703.7	1736.1	1789.0	1783.0	1747.7
50°	1596.0	1626.8	1673.1	1661.2	1629.4
52.5°	1484.5	1514.4	1558.2	1538.7	1508.8
55°	1372.4	1400.2	1436.7	1415.9	1392.6
57.5°	1259.4	1287.4	1315.5	1294.4	1274.2
60°	1145.4	1170.0	1193.0	1171.6	1156.1
62.5°	1029.6	1050.7	1070.5	1050.0	1035.6
65°	912.4	931.0	947.4	928.5	913.1
67.5°	795.9	811.7	826.8	807.3	791.2
70°	679.5	693.0	706.8	686.7	671.9
72.5°	564.5	576.5	588.8	569.3	556.3
75°	452.8	463.1	473.2	455.9	445.8
77.5°	346.0	354.8	361.8	350.7	341.0
80°	246.8	253.5	257.5	253.1	244.0
82.5°	158.7	163.4	165.6	165.3	159.3
85°	86.3	87.8	91.9	92.9	89.7
87.5°	33.4	35.6	36.5	39.4	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)