

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: P489695

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-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: P489695
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-LD4-4LO-20-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

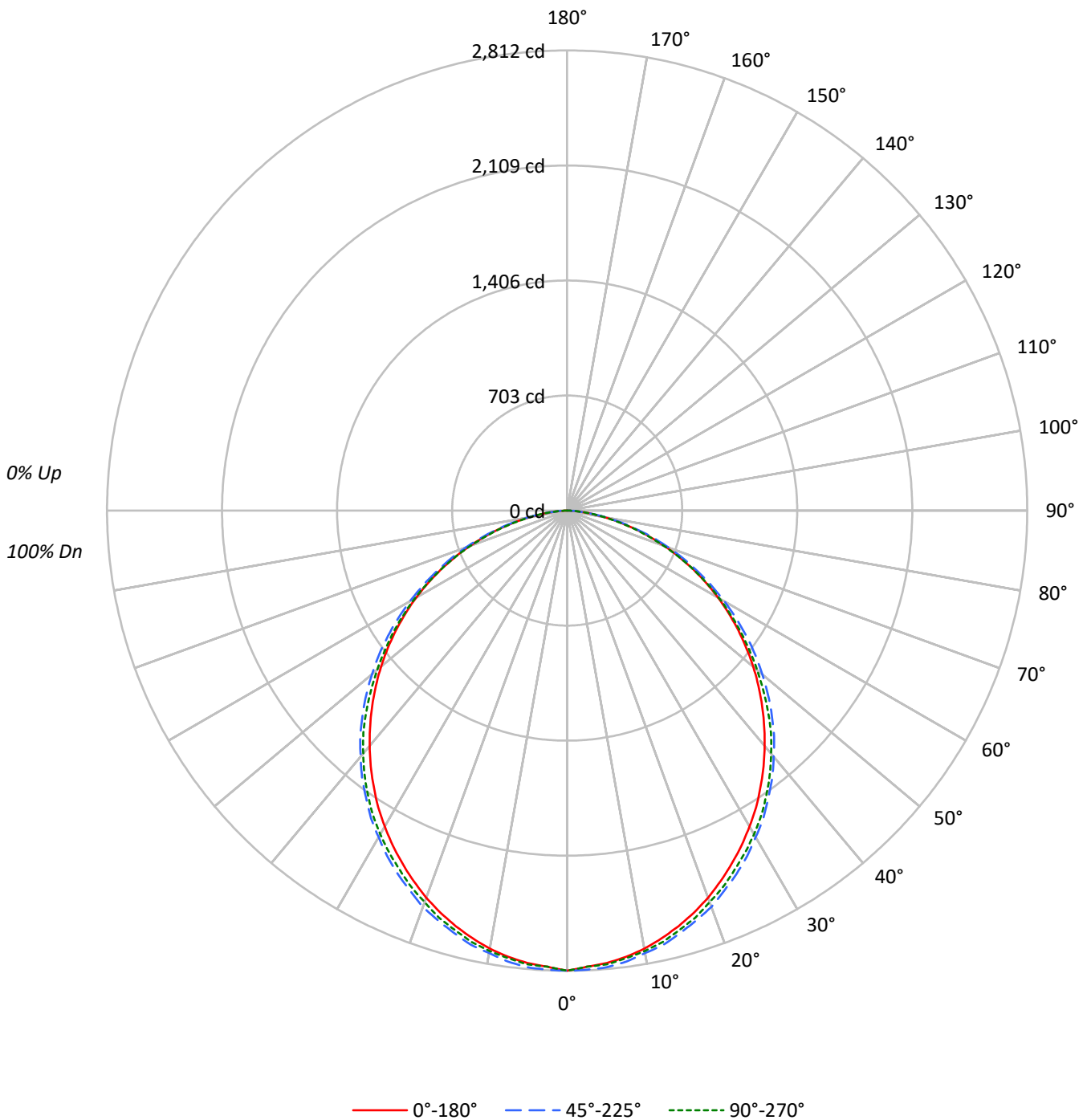
Lumens per Lamp: N/A
Luminaire Lumens: 7392.2 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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°	3783	3783	3783
5°	3748	3783	3760
10°	3714	3751	3733
15°	3662	3722	3696
20°	3605	3690	3646
25°	3534	3637	3595
30°	3463	3581	3548
35°	3385	3519	3487
40°	3297	3449	3405
45°	3205	3366	3303
50°	3108	3258	3173
55°	2996	3136	3039
60°	2868	2987	2895
65°	2703	2806	2705
70°	2487	2587	2460
75°	2190	2289	2156
80°	1780	1857	1759
85°	1240	1320	1289



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.8	3.6
10°-20°	750.4	10.2
20°-30°	1119.2	15.1
30°-40°	1326.3	17.9
40°-50°	1342.0	18.2
50°-60°	1172.0	15.9
60°-70°	856.5	11.6
70°-80°	455.7	6.2
80°-90°	105.3	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°	2134.4	28.9
0°-40°	3460.7	46.8
0°-60°	5974.7	80.8
0°-90°	7392.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7392.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2812	2812	2812	2812	2812	
5°	2775	2780	2801	2808	2784	263
15°	2629	2647	2672	2688	2653	741
25°	2381	2410	2450	2459	2422	1097
35°	2061	2093	2143	2158	2123	1289
45°	1684	1714	1769	1771	1736	1299
55°	1277	1303	1337	1317	1296	1142
65°	849	866	882	864	850	840
75°	421	431	440	424	415	448
85°	80	82	86	86	84	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2811.7	2811.7	2811.7	2811.7	2811.7
2.5°	2789.8	2798.8	2808.2	2812.3	2789.5
5°	2775.1	2780.4	2801.2	2807.6	2783.9
7.5°	2751.1	2759.0	2779.2	2782.1	2759.3
10°	2718.3	2732.3	2745.8	2760.5	2732.6
12.5°	2676.4	2695.4	2718.3	2720.9	2699.8
15°	2629.2	2646.8	2671.7	2687.8	2653.0
17.5°	2576.5	2593.5	2625.7	2628.6	2607.5
20°	2517.6	2538.7	2577.4	2584.1	2546.3
22.5°	2450.8	2479.2	2511.5	2517.9	2490.1
25°	2380.8	2410.1	2449.9	2459.0	2421.8
27.5°	2307.6	2335.7	2380.5	2387.0	2355.6
30°	2229.1	2255.4	2304.6	2315.5	2283.5
32.5°	2149.4	2175.7	2230.2	2239.3	2208.3
35°	2060.9	2093.1	2142.6	2157.6	2122.7
37.5°	1970.7	2002.0	2058.3	2071.7	2034.2
40°	1877.2	1908.3	1963.6	1974.8	1938.7
42.5°	1781.7	1812.8	1871.9	1873.7	1843.8
45°	1684.2	1714.0	1769.1	1770.6	1735.7
47.5°	1585.2	1615.3	1664.5	1659.0	1626.2
50°	1485.0	1513.7	1556.7	1545.6	1516.0
52.5°	1381.3	1409.1	1449.8	1431.6	1403.8
55°	1277.0	1302.7	1336.7	1317.4	1295.7
57.5°	1171.8	1197.9	1223.9	1204.3	1185.6
60°	1065.8	1088.6	1110.0	1090.1	1075.7
62.5°	957.9	977.6	996.0	977.0	963.5
65°	849.0	866.3	881.5	863.9	849.6
67.5°	740.6	755.2	769.3	751.1	736.2
70°	632.2	644.8	657.7	638.9	625.2
72.5°	525.3	536.4	547.8	529.7	517.6
75°	421.3	430.9	440.3	424.2	414.8
77.5°	322.0	330.2	336.6	326.3	317.3
80°	229.7	235.8	239.6	235.5	227.0
82.5°	147.6	152.0	154.1	153.8	148.2
85°	80.3	81.7	85.5	86.4	83.5
87.5°	31.1	33.1	34.0	36.6	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)