

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: P489199

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-40-120-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: P489199
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-LD4-5LO-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

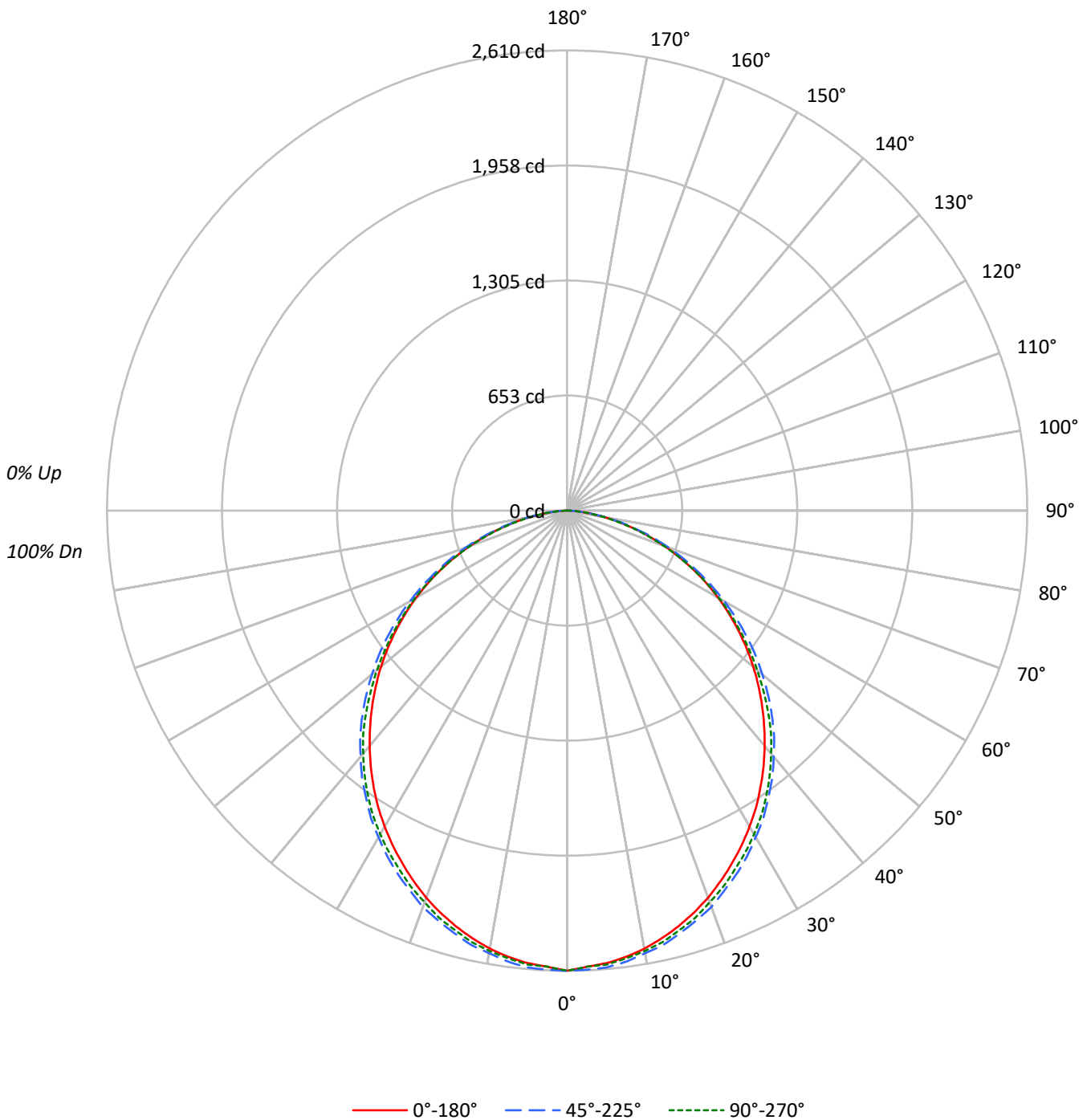
Lumens per Lamp: N/A
Luminaire Lumens: 6862.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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°	7024	7024	7024
5°	6959	7024	6981
10°	6895	6965	6931
15°	6799	6909	6861
20°	6692	6851	6769
25°	6562	6752	6675
30°	6430	6647	6587
35°	6285	6534	6473
40°	6121	6403	6322
45°	5950	6250	6132
50°	5771	6050	5892
55°	5561	5822	5643
60°	5324	5546	5374
65°	5018	5210	5021
70°	4617	4803	4566
75°	4065	4249	4004
80°	3304	3446	3267
85°	2300	2452	2393



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.8	3.6
10°-20°	696.6	10.2
20°-30°	1038.9	15.1
30°-40°	1231.1	17.9
40°-50°	1245.7	18.2
50°-60°	1088.0	15.9
60°-70°	795.0	11.6
70°-80°	423.0	6.2
80°-90°	97.8	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°	1981.3	28.9
0°-40°	3212.5	46.8
0°-60°	5546.2	80.8
0°-90°	6862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2610	2610	2610	2610	2610	
5°	2576	2581	2600	2606	2584	244
15°	2441	2457	2480	2495	2463	688
25°	2210	2237	2274	2283	2248	1018
35°	1913	1943	1989	2003	1970	1196
45°	1563	1591	1642	1644	1611	1206
55°	1185	1209	1241	1223	1203	1060
65°	788	804	818	802	789	780
75°	391	400	409	394	385	416
85°	74	76	79	80	78	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2610.1	2610.1	2610.1	2610.1	2610.1
2.5°	2589.7	2598.1	2606.8	2610.6	2589.4
5°	2576.1	2581.0	2600.3	2606.3	2584.2
7.5°	2553.8	2561.1	2579.9	2582.6	2561.4
10°	2523.3	2536.4	2548.9	2562.5	2536.6
12.5°	2484.4	2502.1	2523.3	2525.8	2506.2
15°	2440.6	2457.0	2480.1	2495.0	2462.7
17.5°	2391.7	2407.5	2437.4	2440.1	2420.5
20°	2337.0	2356.6	2392.5	2398.8	2363.7
22.5°	2275.0	2301.4	2331.3	2337.3	2311.5
25°	2210.0	2237.2	2274.2	2282.6	2248.1
27.5°	2142.1	2168.2	2209.8	2215.8	2186.7
30°	2069.2	2093.7	2139.3	2149.4	2119.8
32.5°	1995.2	2019.7	2070.3	2078.7	2049.9
35°	1913.1	1943.0	1989.0	2002.8	1970.5
37.5°	1829.3	1858.4	1910.6	1923.1	1888.3
40°	1742.6	1771.4	1822.8	1833.1	1799.7
42.5°	1653.9	1682.8	1737.7	1739.3	1711.6
45°	1563.4	1591.1	1642.2	1643.6	1611.2
47.5°	1471.5	1499.5	1545.2	1540.0	1509.5
50°	1378.5	1405.1	1445.1	1434.7	1407.3
52.5°	1282.2	1308.0	1345.8	1329.0	1303.1
55°	1185.4	1209.3	1240.9	1222.9	1202.8
57.5°	1087.8	1112.0	1136.2	1117.9	1100.5
60°	989.3	1010.5	1030.4	1011.9	998.6
62.5°	889.2	907.5	924.6	906.9	894.4
65°	788.1	804.1	818.3	801.9	788.6
67.5°	687.5	701.1	714.1	697.2	683.4
70°	586.8	598.5	610.5	593.1	580.3
72.5°	487.6	497.9	508.5	491.7	480.5
75°	391.0	400.0	408.7	393.8	385.1
77.5°	298.9	306.5	312.5	302.9	294.5
80°	213.2	218.9	222.4	218.6	210.8
82.5°	137.1	141.1	143.0	142.8	137.6
85°	74.5	75.9	79.4	80.2	77.5
87.5°	28.8	30.7	31.5	34.0	31.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)