

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: P489644

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-50-120-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: P489644
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-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

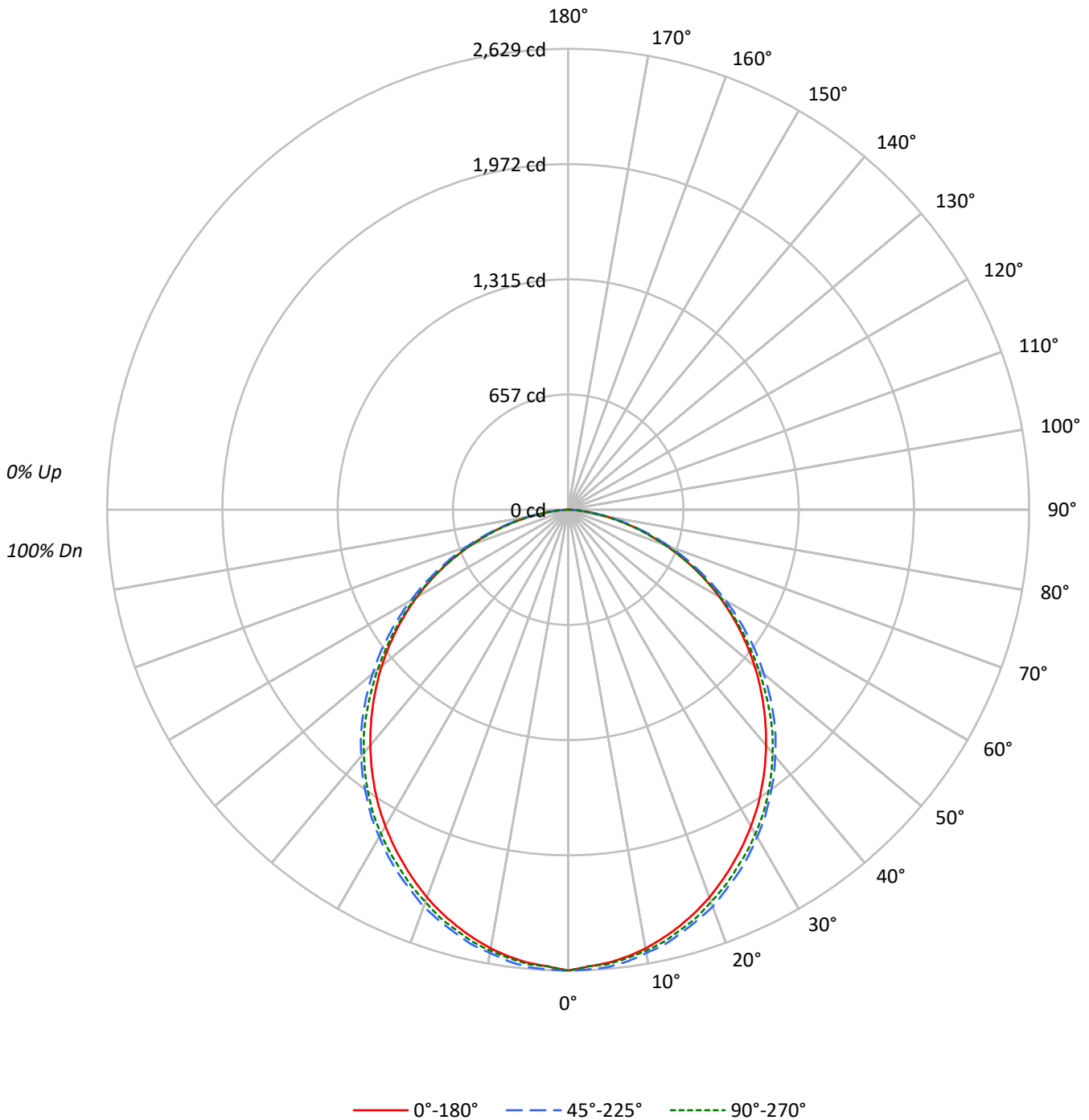
Lumens per Lamp: N/A
Luminaire Lumens: 6912.1 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3537	3537	3537
5°	3505	3538	3516
10°	3473	3508	3491
15°	3425	3480	3455
20°	3371	3451	3409
25°	3305	3401	3362
30°	3238	3348	3317
35°	3165	3291	3260
40°	3083	3225	3184
45°	2997	3148	3088
50°	2906	3047	2967
55°	2801	2932	2842
60°	2682	2793	2707
65°	2527	2624	2529
70°	2325	2419	2300
75°	2048	2140	2017
80°	1664	1736	1645
85°	1159	1235	1206



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.6	3.6
10°-20°	701.7	10.2
20°-30°	1046.5	15.1
30°-40°	1240.1	17.9
40°-50°	1254.8	18.2
50°-60°	1095.9	15.9
60°-70°	800.8	11.6
70°-80°	426.1	6.2
80°-90°	98.5	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°	1995.8	28.9
0°-40°	3235.9	46.8
0°-60°	5586.7	80.8
0°-90°	6912.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6912.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2629	2629	2629	2629	2629	
5°	2595	2600	2619	2625	2603	246
15°	2458	2475	2498	2513	2481	693
25°	2226	2254	2291	2299	2264	1026
35°	1927	1957	2004	2017	1985	1205
45°	1575	1603	1654	1656	1623	1215
55°	1194	1218	1250	1232	1212	1067
65°	794	810	824	808	794	786
75°	394	403	412	397	388	419
85°	75	76	80	81	78	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2629.1	2629.1	2629.1	2629.1	2629.1
2.5°	2608.6	2617.1	2625.8	2629.7	2608.3
5°	2594.9	2599.8	2619.3	2625.3	2603.1
7.5°	2572.4	2579.8	2598.7	2601.5	2580.1
10°	2541.7	2554.9	2567.5	2581.2	2555.2
12.5°	2502.6	2520.4	2541.7	2544.2	2524.5
15°	2458.5	2474.9	2498.2	2513.2	2480.7
17.5°	2409.2	2425.0	2455.2	2457.9	2438.2
20°	2354.1	2373.8	2410.0	2416.3	2380.9
22.5°	2291.6	2318.2	2348.3	2354.4	2328.3
25°	2226.2	2253.6	2290.8	2299.3	2264.5
27.5°	2157.7	2184.0	2225.9	2231.9	2202.6
30°	2084.3	2108.9	2155.0	2165.1	2135.2
32.5°	2009.8	2034.4	2085.4	2093.9	2064.8
35°	1927.1	1957.2	2003.5	2017.4	1984.8
37.5°	1842.7	1872.0	1924.6	1937.2	1902.1
40°	1755.3	1784.3	1836.1	1846.5	1812.8
42.5°	1666.0	1695.0	1750.4	1752.0	1724.1
45°	1574.8	1602.7	1654.2	1655.6	1623.0
47.5°	1482.2	1510.4	1556.4	1551.2	1520.5
50°	1388.5	1415.4	1455.6	1445.2	1417.6
52.5°	1291.5	1317.6	1355.6	1338.7	1312.6
55°	1194.0	1218.1	1249.9	1231.8	1211.6
57.5°	1095.7	1120.1	1144.5	1126.1	1108.6
60°	996.5	1017.9	1037.9	1019.3	1005.8
62.5°	895.7	914.1	931.3	913.5	900.9
65°	793.8	810.0	824.2	807.8	794.4
67.5°	692.5	706.2	719.3	702.3	688.4
70°	591.1	602.9	615.0	597.4	584.6
72.5°	491.1	501.6	512.2	495.3	484.0
75°	393.9	402.9	411.7	396.6	387.9
77.5°	301.0	308.7	314.7	305.2	296.7
80°	214.8	220.5	224.1	220.2	212.3
82.5°	138.1	142.2	144.1	143.8	138.6
85°	75.1	76.4	80.0	80.8	78.1
87.5°	29.0	31.0	31.8	34.2	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)