

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: P489665

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3LO-35-120-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: P489665
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
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

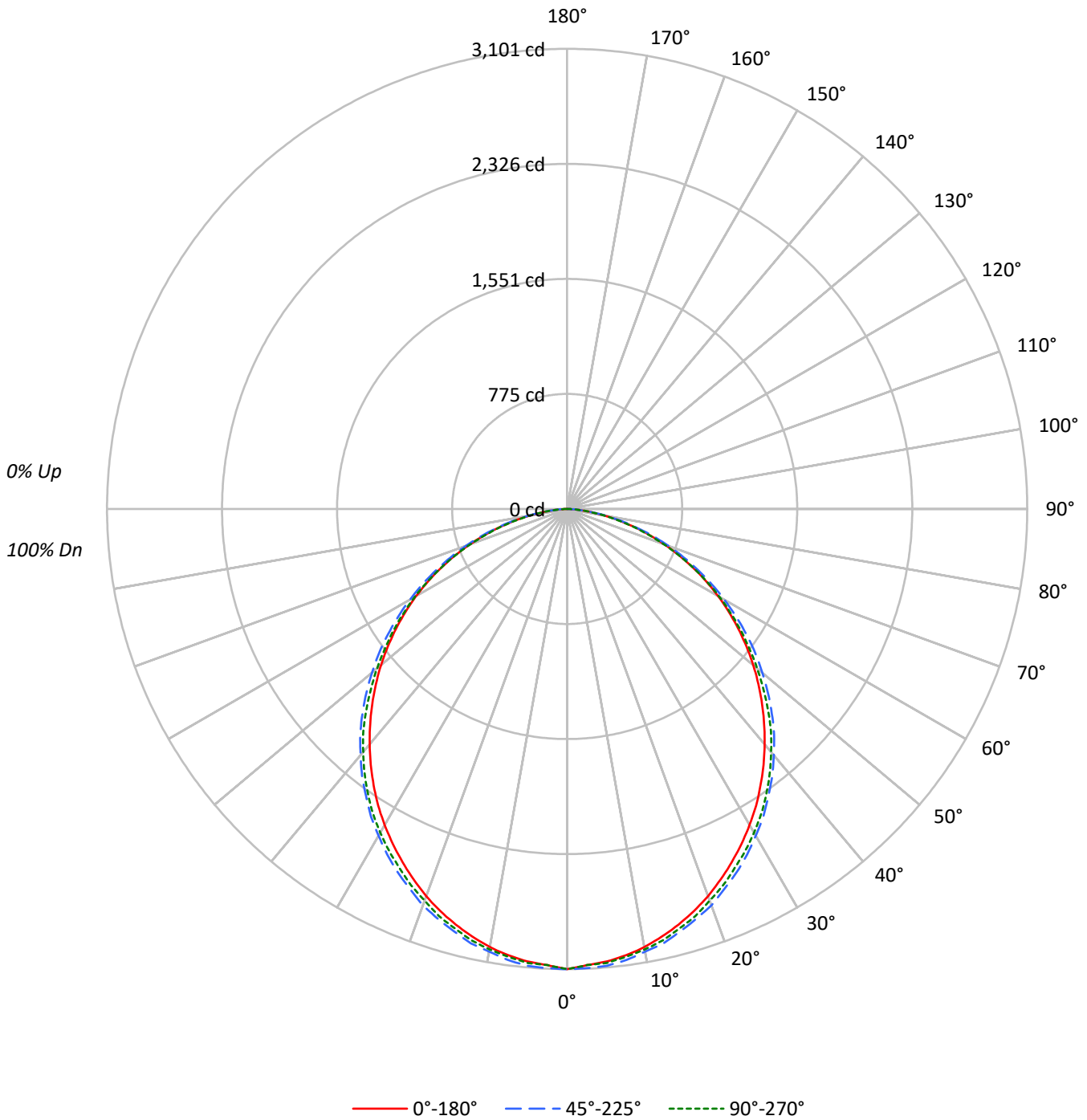
Lumens per Lamp: N/A
Luminaire Lumens: 8153.2 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P489665

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-3LO-35-120-EDD

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°	4173	4173	4173
5°	4134	4173	4147
10°	4096	4138	4118
15°	4039	4105	4076
20°	3976	4070	4021
25°	3898	4011	3965
30°	3820	3949	3913
35°	3734	3882	3846
40°	3637	3804	3756
45°	3534	3713	3643
50°	3428	3594	3500
55°	3304	3458	3352
60°	3163	3295	3193
65°	2981	3095	2983
70°	2743	2854	2712
75°	2415	2524	2378
80°	1963	2048	1940
85°	1366	1456	1422



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.1	3.6
10°-20°	827.7	10.2
20°-30°	1234.4	15.1
30°-40°	1462.8	17.9
40°-50°	1480.1	18.2
50°-60°	1292.7	15.9
60°-70°	944.6	11.6
70°-80°	502.6	6.2
80°-90°	116.2	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°	2354.2	28.9
0°-40°	3817.0	46.8
0°-60°	6589.8	80.8
0°-90°	8153.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8153.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3101	3101	3101	3101	3101	
5°	3061	3067	3090	3097	3070	290
15°	2900	2919	2947	2964	2926	818
25°	2626	2658	2702	2712	2671	1210
35°	2273	2309	2363	2380	2341	1422
45°	1858	1890	1951	1953	1914	1433
55°	1408	1437	1474	1453	1429	1259
65°	936	955	972	953	937	927
75°	465	475	486	468	458	494
85°	88	90	94	95	92	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3101.2	3101.2	3101.2	3101.2	3101.2
2.5°	3077.0	3087.0	3097.3	3101.8	3076.6
5°	3060.8	3066.6	3089.6	3096.7	3070.5
7.5°	3034.3	3043.0	3065.3	3068.6	3043.4
10°	2998.1	3013.6	3028.5	3044.6	3013.9
12.5°	2951.9	2972.9	2998.1	3001.0	2977.8
15°	2899.9	2919.3	2946.7	2964.5	2926.1
17.5°	2841.7	2860.5	2896.0	2899.2	2876.0
20°	2776.8	2800.1	2842.7	2850.1	2808.5
22.5°	2703.1	2734.5	2770.0	2777.1	2746.4
25°	2625.9	2658.2	2702.1	2712.2	2671.1
27.5°	2545.1	2576.1	2625.6	2632.7	2598.1
30°	2458.5	2487.6	2541.9	2553.8	2518.6
32.5°	2370.6	2399.7	2459.8	2469.8	2435.6
35°	2273.1	2308.6	2363.2	2379.7	2341.2
37.5°	2173.5	2208.1	2270.2	2285.0	2243.7
40°	2070.5	2104.7	2165.8	2178.1	2138.3
42.5°	1965.1	1999.4	2064.7	2066.6	2033.6
45°	1857.5	1890.5	1951.2	1952.9	1914.4
47.5°	1748.3	1781.6	1835.9	1829.8	1793.6
50°	1637.8	1669.5	1717.0	1704.7	1672.1
52.5°	1523.5	1554.1	1599.1	1579.0	1548.3
55°	1408.4	1436.9	1474.3	1453.0	1429.1
57.5°	1292.4	1321.2	1349.9	1328.3	1307.6
60°	1175.5	1200.7	1224.3	1202.3	1186.5
62.5°	1056.6	1078.2	1098.6	1077.6	1062.7
65°	936.4	955.4	972.2	952.8	937.0
67.5°	816.8	833.0	848.5	828.4	812.0
70°	697.3	711.2	725.4	704.7	689.5
72.5°	579.3	591.6	604.2	584.2	570.9
75°	464.6	475.3	485.6	467.9	457.5
77.5°	355.1	364.1	371.3	359.9	349.9
80°	253.3	260.1	264.3	259.8	250.4
82.5°	162.8	167.7	170.0	169.6	163.5
85°	88.5	90.1	94.3	95.3	92.1
87.5°	34.2	36.5	37.5	40.4	37.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)