

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: P488745

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3STD-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: P488745
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-12-4-INS-A19156-LD4-3STD-50-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

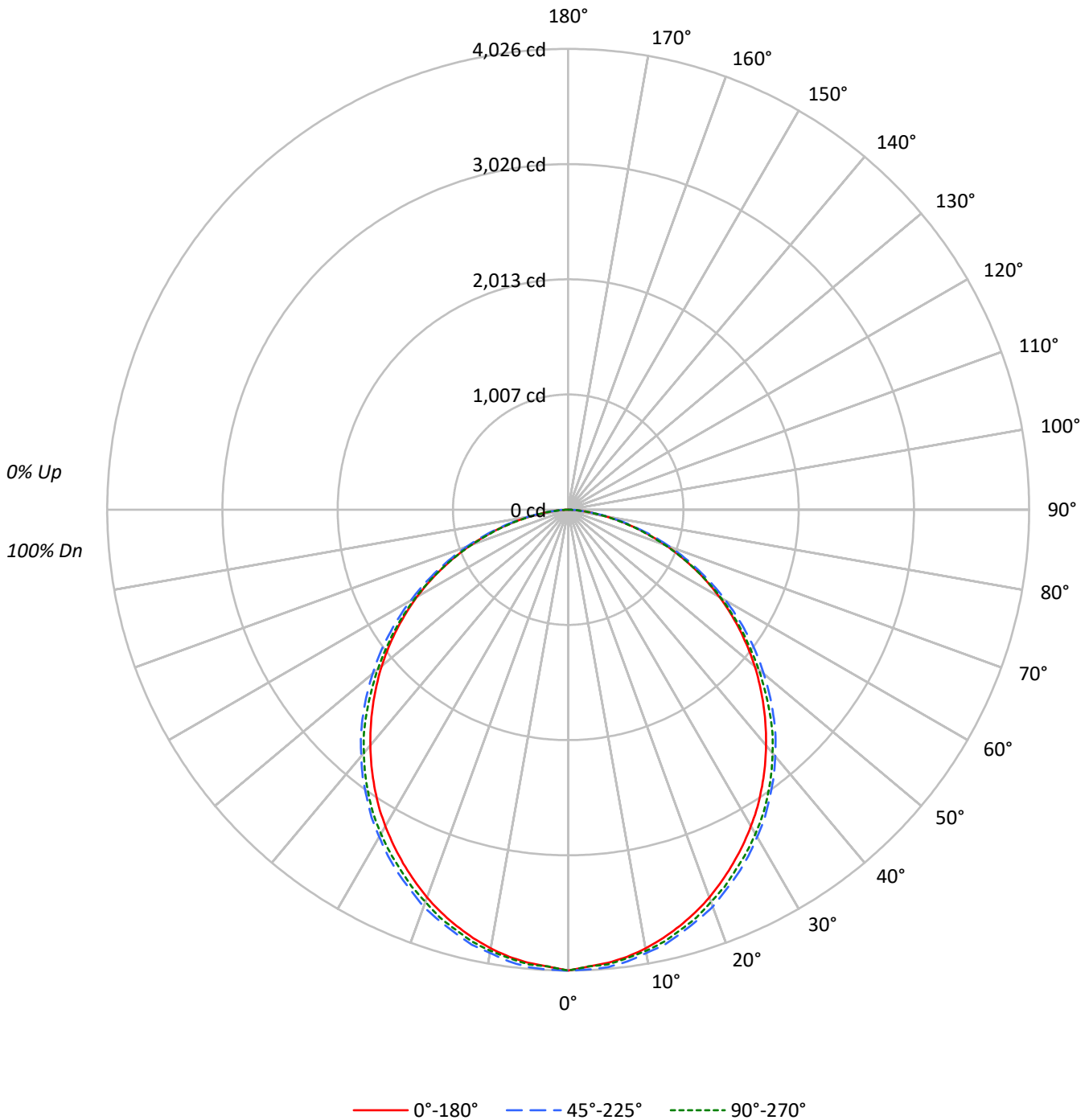
Lumens per Lamp: N/A
Luminaire Lumens: 10585.7 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P488745

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P488745

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD

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°	10835	10835	10835
5°	10735	10836	10769
10°	10636	10744	10693
15°	10489	10659	10584
20°	10324	10569	10442
25°	10123	10417	10297
30°	9918	10255	10161
35°	9695	10080	9986
40°	9443	9878	9753
45°	9178	9641	9459
50°	8902	9333	9088
55°	8579	8981	8705
60°	8214	8555	8290
65°	7741	8038	7747
70°	7123	7410	7043
75°	6273	6555	6176
80°	5097	5318	5038
85°	3548	3782	3693



TEST NUMBER: P488745

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.2	3.6
10°-20°	1074.6	10.2
20°-30°	1602.7	15.1
30°-40°	1899.2	17.9
40°-50°	1921.7	18.2
50°-60°	1678.3	15.9
60°-70°	1226.5	11.6
70°-80°	652.6	6.2
80°-90°	150.8	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°	3056.5	28.9
0°-40°	4955.8	46.8
0°-60°	8555.8	80.8
0°-90°	10585.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10585.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4026	4026	4026	4026	4026	
5°	3974	3982	4011	4021	3987	377
15°	3765	3790	3826	3849	3799	1061
25°	3409	3451	3508	3521	3468	1571
35°	2951	2997	3068	3090	3040	1846
45°	2412	2454	2533	2536	2486	1861
55°	1829	1866	1914	1886	1856	1635
65°	1216	1240	1262	1237	1217	1203
75°	603	617	630	607	594	641
85°	115	117	122	124	120	146
90°	0	0	0	0	0	



TEST NUMBER: P488745

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4026.4	4026.4	4026.4	4026.4	4026.4
2.5°	3995.0	4008.0	4021.4	4027.3	3994.5
5°	3974.0	3981.5	4011.3	4020.6	3986.6
7.5°	3939.6	3950.9	3979.9	3984.1	3951.3
10°	3892.6	3912.7	3932.0	3953.0	3913.2
12.5°	3832.6	3859.9	3892.6	3896.4	3866.2
15°	3765.1	3790.2	3825.9	3849.0	3799.1
17.5°	3689.6	3713.9	3760.0	3764.2	3734.0
20°	3605.2	3635.4	3690.8	3700.5	3646.4
22.5°	3509.6	3550.3	3596.4	3605.7	3565.8
25°	3409.3	3451.3	3508.3	3521.3	3468.1
27.5°	3304.5	3344.7	3408.9	3418.1	3373.3
30°	3192.0	3229.8	3300.3	3315.8	3270.1
32.5°	3077.9	3115.7	3193.7	3206.7	3162.2
35°	2951.2	2997.4	3068.3	3089.7	3039.7
37.5°	2822.0	2866.9	2947.5	2966.8	2913.1
40°	2688.2	2732.7	2812.0	2827.9	2776.3
42.5°	2551.4	2595.9	2680.6	2683.2	2640.4
45°	2411.7	2454.5	2533.4	2535.5	2485.6
47.5°	2269.9	2313.2	2383.6	2375.7	2328.7
50°	2126.5	2167.6	2229.3	2213.3	2170.9
52.5°	1978.0	2017.8	2076.1	2050.1	2010.3
55°	1828.6	1865.5	1914.2	1886.5	1855.5
57.5°	1678.0	1715.4	1752.7	1724.6	1697.7
60°	1526.2	1558.9	1589.5	1561.0	1540.4
62.5°	1371.8	1399.9	1426.3	1399.1	1379.8
65°	1215.7	1240.5	1262.3	1237.1	1216.6
67.5°	1060.5	1081.5	1101.6	1075.6	1054.2
70°	905.3	923.3	941.8	914.9	895.2
72.5°	752.2	768.1	784.5	758.5	741.3
75°	603.3	617.1	630.5	607.4	594.0
77.5°	461.0	472.8	482.0	467.3	454.3
80°	328.9	337.7	343.2	337.3	325.1
82.5°	211.4	217.7	220.7	220.2	212.3
85°	114.9	117.0	122.5	123.8	119.6
87.5°	44.5	47.4	48.7	52.4	48.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)