

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: P489705

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-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: P489705
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-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

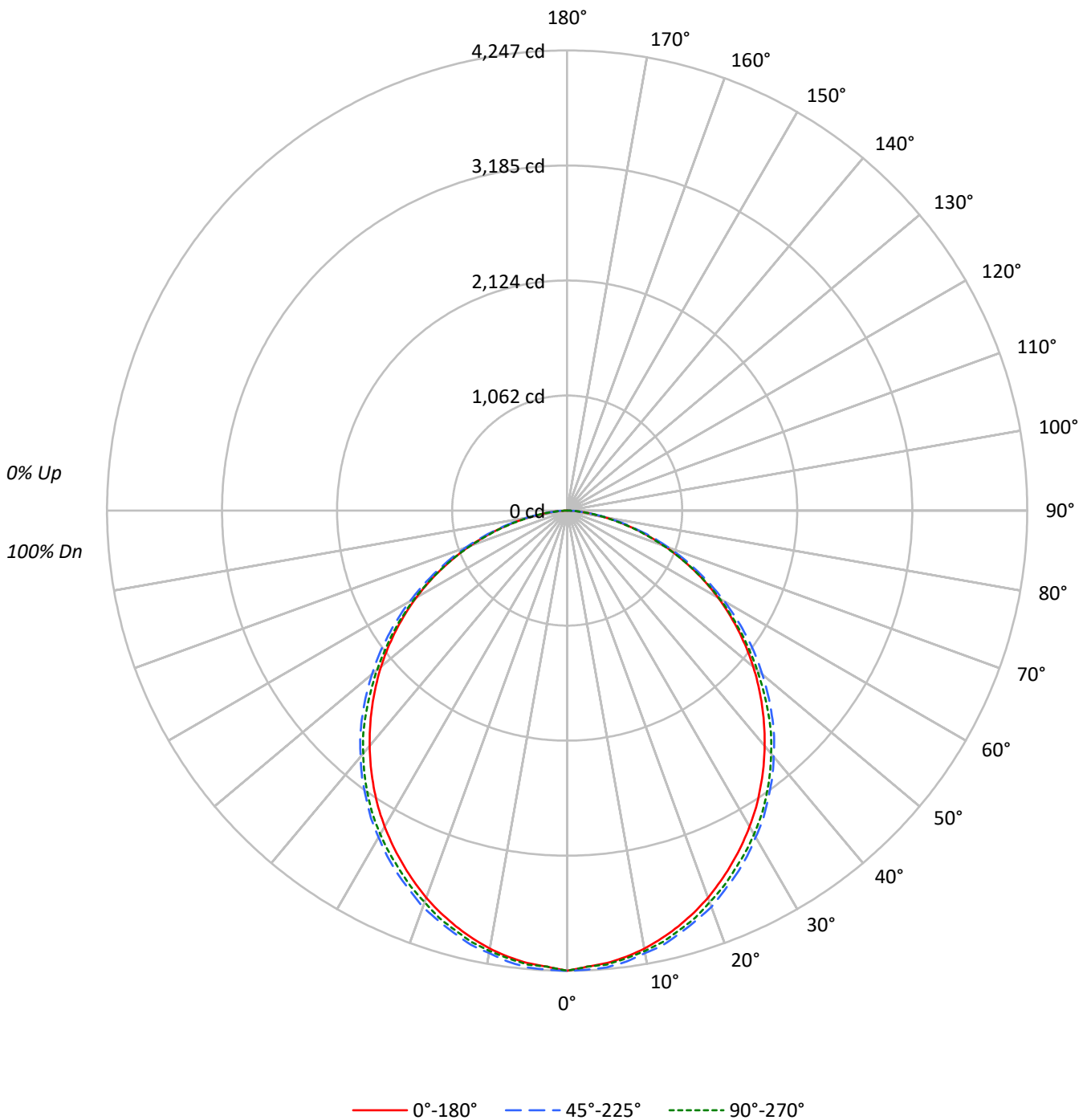
Lumens per Lamp: N/A
Luminaire Lumens: 11165.9 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P489705

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489705

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-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	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°	5714	5714	5714
5°	5662	5715	5680
10°	5610	5667	5639
15°	5532	5621	5582
20°	5445	5574	5507
25°	5339	5494	5431
30°	5231	5408	5359
35°	5113	5316	5267
40°	4980	5210	5144
45°	4841	5085	4989
50°	4695	4922	4793
55°	4525	4736	4591
60°	4332	4512	4373
65°	4083	4239	4085
70°	3757	3908	3715
75°	3308	3458	3257
80°	2688	2805	2657
85°	1871	1995	1947



TEST NUMBER: P489705

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.0	3.6
10°-20°	1133.5	10.2
20°-30°	1690.6	15.1
30°-40°	2003.3	17.9
40°-50°	2027.1	18.2
50°-60°	1770.3	15.9
60°-70°	1293.7	11.6
70°-80°	688.3	6.2
80°-90°	159.1	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°	3224.0	28.9
0°-40°	5227.4	46.8
0°-60°	9024.8	80.8
0°-90°	11165.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11165.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4247	4247	4247	4247	4247	
5°	4192	4200	4231	4241	4205	397
15°	3971	3998	4036	4060	4007	1120
25°	3596	3640	3701	3714	3658	1657
35°	3113	3162	3236	3259	3206	1947
45°	2544	2589	2672	2674	2622	1963
55°	1929	1968	2019	1990	1957	1724
65°	1282	1308	1332	1305	1283	1269
75°	636	651	665	641	627	677
85°	121	124	129	130	126	154
90°	0	0	0	0	0	



TEST NUMBER: P489705

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4LO-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4247.1	4247.1	4247.1	4247.1	4247.1
2.5°	4213.9	4227.6	4241.8	4248.0	4213.5
5°	4191.8	4199.8	4231.2	4240.9	4205.1
7.5°	4155.5	4167.5	4198.0	4202.4	4167.9
10°	4106.0	4127.2	4147.5	4169.7	4127.6
12.5°	4042.7	4071.4	4106.0	4109.9	4078.1
15°	3971.4	3998.0	4035.6	4059.9	4007.3
17.5°	3891.8	3917.4	3966.1	3970.5	3938.7
20°	3802.8	3834.7	3893.1	3903.3	3846.2
22.5°	3702.0	3744.9	3793.5	3803.3	3761.2
25°	3596.2	3640.4	3700.6	3714.3	3658.1
27.5°	3485.6	3528.0	3595.8	3605.5	3558.1
30°	3367.0	3406.8	3481.1	3497.5	3449.3
32.5°	3246.6	3286.4	3368.7	3382.5	3335.6
35°	3113.0	3161.7	3236.4	3259.0	3206.4
37.5°	2976.7	3024.0	3109.0	3129.4	3072.7
40°	2835.5	2882.4	2966.1	2982.9	2928.5
42.5°	2691.3	2738.2	2827.6	2830.2	2785.1
45°	2543.9	2589.1	2672.3	2674.5	2621.8
47.5°	2394.4	2439.9	2514.3	2505.9	2456.3
50°	2243.0	2286.4	2351.4	2334.6	2289.9
52.5°	2086.4	2128.4	2189.9	2162.5	2120.5
55°	1928.9	1967.8	2019.1	1989.9	1957.2
57.5°	1770.0	1809.4	1848.8	1819.1	1790.8
60°	1609.8	1644.3	1676.6	1646.5	1624.9
62.5°	1447.0	1476.6	1504.5	1475.7	1455.4
65°	1282.4	1308.5	1331.5	1304.9	1283.2
67.5°	1118.6	1140.8	1162.0	1134.6	1112.0
70°	954.9	973.9	993.4	965.1	944.3
72.5°	793.4	810.2	827.5	800.0	781.9
75°	636.3	650.9	665.1	640.7	626.6
77.5°	486.3	498.7	508.4	492.9	479.2
80°	346.9	356.2	362.0	355.8	342.9
82.5°	223.0	229.7	232.8	232.3	223.9
85°	121.2	123.5	129.2	130.5	126.1
87.5°	46.9	50.0	51.3	55.3	50.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)