

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: P489152

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4HI-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: P489152
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-LD4-4HI-50-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

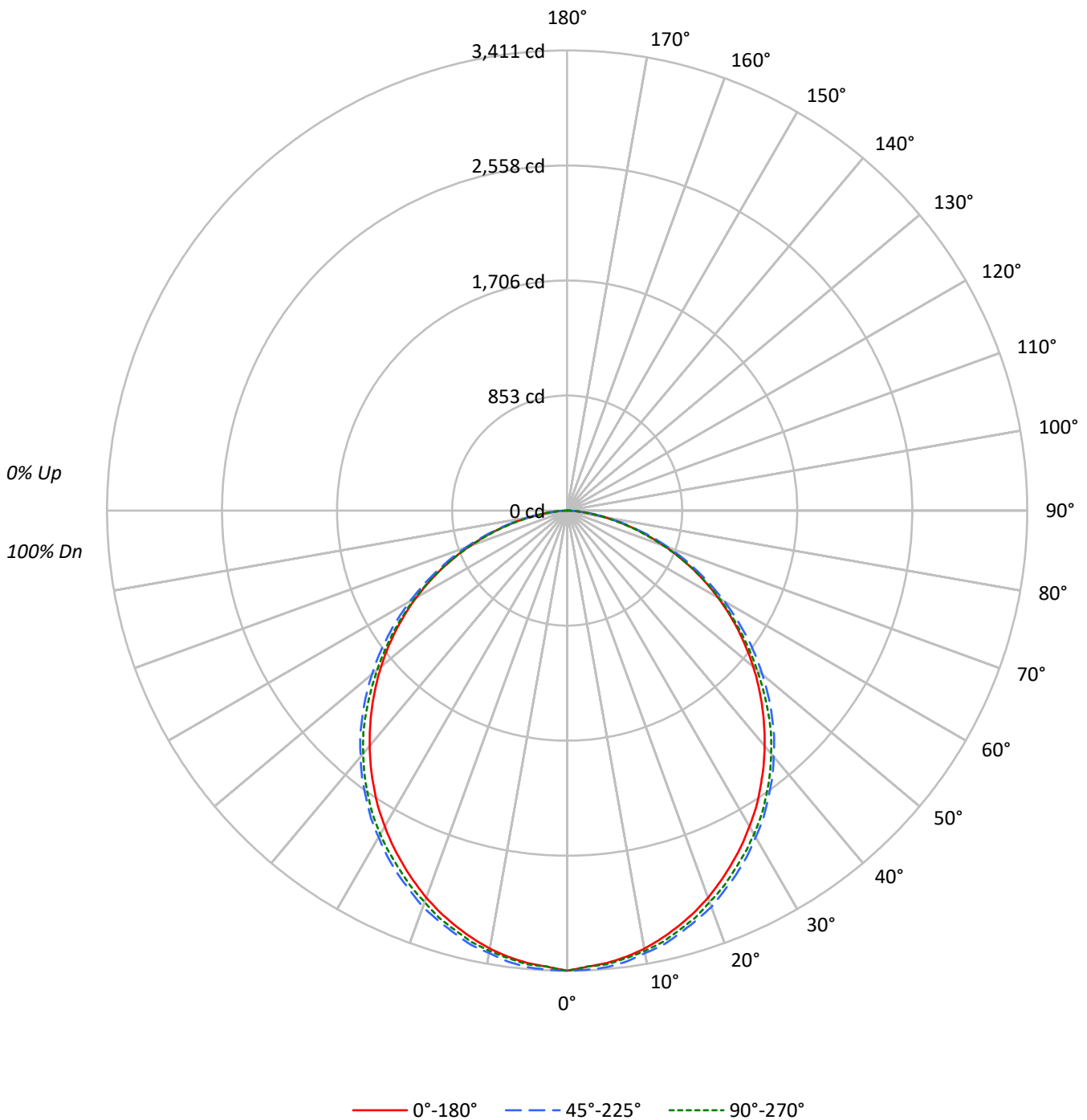
Lumens per Lamp: N/A
Luminaire Lumens: 8966.7 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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: P489152

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4HI-50-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489152

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4HI-50-120-EDD-90

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°	9178	9178	9178
5°	9093	9178	9122
10°	9010	9101	9057
15°	8885	9029	8965
20°	8745	8953	8845
25°	8575	8824	8722
30°	8401	8686	8607
35°	8212	8538	8458
40°	7999	8367	8261
45°	7774	8166	8012
50°	7541	7905	7698
55°	7267	7607	7374
60°	6957	7246	7022
65°	6557	6808	6562
70°	6033	6277	5966
75°	5313	5553	5232
80°	4317	4505	4268
85°	3007	3205	3128



TEST NUMBER: P489152

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4HI-50-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.2	3.6
10°-20°	910.2	10.2
20°-30°	1357.6	15.1
30°-40°	1608.8	17.9
40°-50°	1627.8	18.2
50°-60°	1421.7	15.9
60°-70°	1038.9	11.6
70°-80°	552.8	6.2
80°-90°	127.8	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°	2589.0	28.9
0°-40°	4197.8	46.8
0°-60°	7247.3	80.8
0°-90°	8966.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8966.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3411	3411	3411	3411	3411	
5°	3366	3373	3398	3406	3377	319
15°	3189	3211	3241	3260	3218	899
25°	2888	2923	2972	2983	2938	1330
35°	2500	2539	2599	2617	2575	1563
45°	2043	2079	2146	2148	2105	1576
55°	1549	1580	1621	1598	1572	1385
65°	1030	1051	1069	1048	1030	1019
75°	511	523	534	514	503	543
85°	97	99	104	105	101	123
90°	0	0	0	0	0	



TEST NUMBER: P489152

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4HI-50-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3410.6	3410.6	3410.6	3410.6	3410.6
2.5°	3384.0	3395.0	3406.3	3411.3	3383.6
5°	3366.2	3372.6	3397.8	3405.6	3376.9
7.5°	3337.1	3346.7	3371.2	3374.7	3347.0
10°	3297.3	3314.3	3330.7	3348.4	3314.7
12.5°	3246.4	3269.5	3297.3	3300.5	3274.9
15°	3189.2	3210.6	3240.8	3260.3	3218.0
17.5°	3125.3	3145.9	3185.0	3188.5	3162.9
20°	3053.8	3079.4	3126.3	3134.5	3088.7
22.5°	2972.8	3007.3	3046.4	3054.2	3020.4
25°	2887.9	2923.4	2971.8	2982.8	2937.6
27.5°	2799.1	2833.2	2887.5	2895.4	2857.3
30°	2703.8	2735.8	2795.5	2808.7	2769.9
32.5°	2607.2	2639.2	2705.3	2716.3	2678.6
35°	2499.9	2538.9	2599.0	2617.1	2574.8
37.5°	2390.4	2428.4	2496.7	2513.0	2467.5
40°	2277.1	2314.7	2381.9	2395.4	2351.7
42.5°	2161.2	2198.9	2270.7	2272.8	2236.5
45°	2042.9	2079.1	2145.9	2147.7	2105.4
47.5°	1922.8	1959.4	2019.1	2012.3	1972.5
50°	1801.3	1836.1	1888.3	1874.8	1838.9
52.5°	1675.5	1709.2	1758.6	1736.6	1702.8
55°	1549.0	1580.2	1621.4	1598.0	1571.7
57.5°	1421.4	1453.0	1484.6	1460.8	1438.1
60°	1292.7	1320.5	1346.4	1322.2	1304.8
62.5°	1162.0	1185.8	1208.2	1185.1	1168.7
65°	1029.8	1050.8	1069.2	1047.9	1030.5
67.5°	898.3	916.1	933.1	911.1	893.0
70°	766.8	782.1	797.8	775.0	758.3
72.5°	637.1	650.6	664.5	642.5	627.9
75°	511.0	522.7	534.1	514.5	503.2
77.5°	390.5	400.5	408.3	395.9	384.8
80°	278.6	286.1	290.7	285.7	275.4
82.5°	179.1	184.4	186.9	186.6	179.8
85°	97.4	99.1	103.8	104.8	101.3
87.5°	37.7	40.2	41.2	44.4	40.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)