

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: P489095

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-20-120-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: P489095
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-LD4-2STD-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

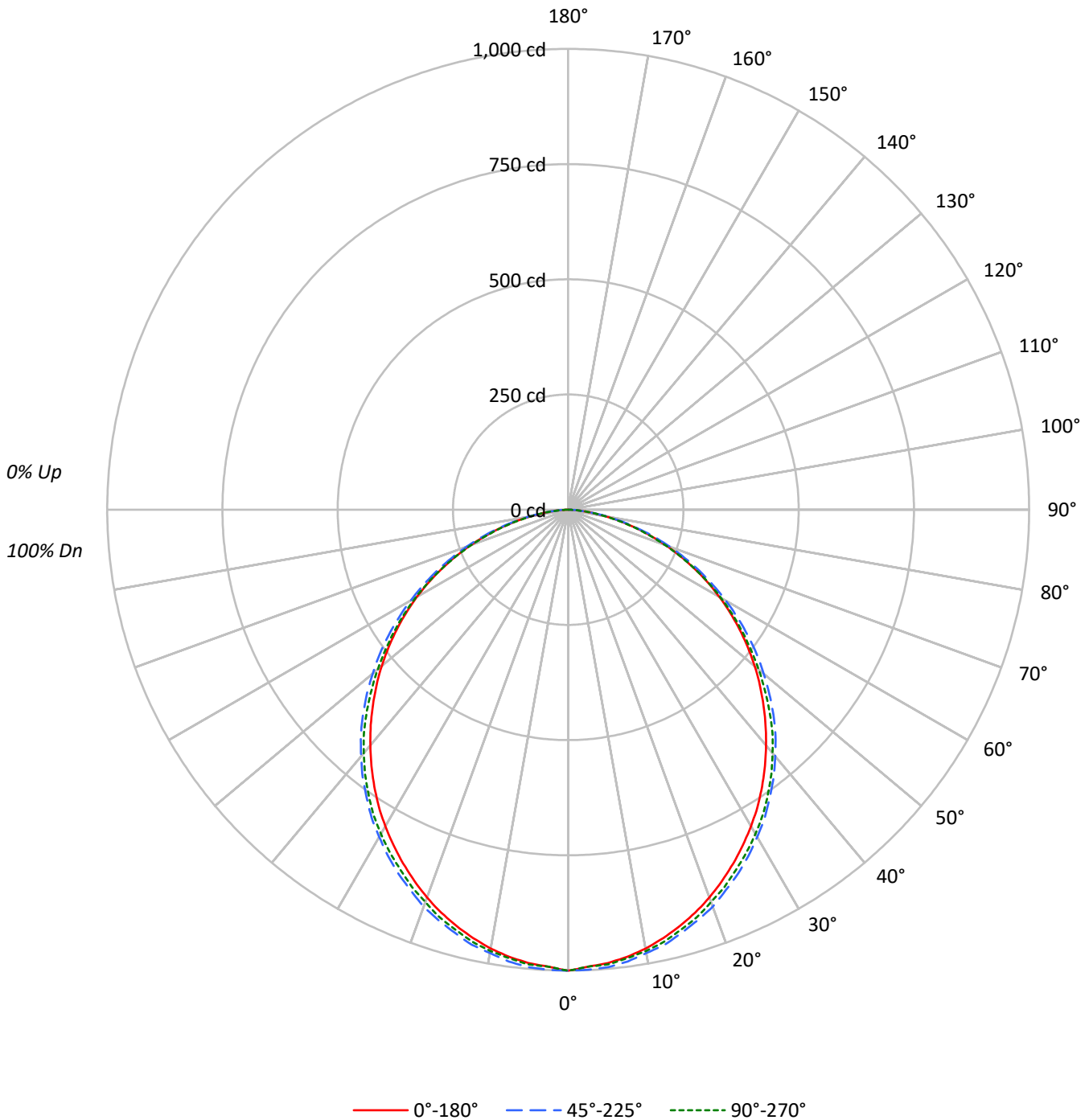
Lumens per Lamp: N/A
Luminaire Lumens: 2629.8 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P489095

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2STD-20-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489095

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2STD-20-120-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°	2692	2692	2692
5°	2667	2692	2675
10°	2642	2669	2656
15°	2606	2648	2629
20°	2565	2626	2594
25°	2515	2588	2558
30°	2464	2548	2524
35°	2409	2504	2481
40°	2346	2454	2423
45°	2280	2395	2350
50°	2212	2318	2258
55°	2131	2231	2163
60°	2040	2125	2060
65°	1923	1997	1924
70°	1769	1841	1750
75°	1559	1628	1535
80°	1266	1322	1252
85°	883	939	917



TEST NUMBER: P489095

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2STD-20-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.2	3.6
10°-20°	267.0	10.2
20°-30°	398.2	15.1
30°-40°	471.8	17.9
40°-50°	477.4	18.2
50°-60°	417.0	15.9
60°-70°	304.7	11.6
70°-80°	162.1	6.2
80°-90°	37.5	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°	759.3	28.9
0°-40°	1231.1	46.8
0°-60°	2125.5	80.8
0°-90°	2629.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2629.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1000	1000	1000	1000	1000	
5°	987	989	996	999	990	94
15°	935	942	950	956	944	264
25°	847	857	872	875	862	390
35°	733	745	762	768	755	459
45°	599	610	629	630	618	462
55°	454	464	476	469	461	406
65°	302	308	314	307	302	299
75°	150	153	157	151	148	159
85°	29	29	30	31	30	36
90°	0	0	0	0	0	



TEST NUMBER: P489095

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2STD-20-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1000.3	1000.3	1000.3	1000.3	1000.3
2.5°	992.5	995.7	999.0	1000.5	992.4
5°	987.3	989.1	996.5	998.8	990.4
7.5°	978.7	981.5	988.7	989.8	981.6
10°	967.0	972.0	976.8	982.0	972.1
12.5°	952.1	958.9	967.0	968.0	960.5
15°	935.4	941.6	950.5	956.2	943.8
17.5°	916.6	922.6	934.1	935.1	927.6
20°	895.6	903.2	916.9	919.3	905.9
22.5°	871.9	882.0	893.5	895.8	885.9
25°	847.0	857.4	871.6	874.8	861.6
27.5°	820.9	830.9	846.9	849.2	838.0
30°	793.0	802.4	819.9	823.7	812.4
32.5°	764.6	774.0	793.4	796.6	785.6
35°	733.2	744.6	762.2	767.6	755.2
37.5°	701.1	712.2	732.2	737.0	723.7
40°	667.8	678.9	698.6	702.5	689.7
42.5°	633.9	644.9	666.0	666.6	655.9
45°	599.1	609.8	629.4	629.9	617.5
47.5°	563.9	574.7	592.2	590.2	578.5
50°	528.3	538.5	553.8	549.9	539.3
52.5°	491.4	501.3	515.8	509.3	499.4
55°	454.3	463.5	475.5	468.7	461.0
57.5°	416.9	426.1	435.4	428.4	421.8
60°	379.1	387.3	394.9	387.8	382.7
62.5°	340.8	347.8	354.3	347.6	342.8
65°	302.0	308.2	313.6	307.3	302.2
67.5°	263.5	268.7	273.7	267.2	261.9
70°	224.9	229.4	234.0	227.3	222.4
72.5°	186.9	190.8	194.9	188.4	184.2
75°	149.9	153.3	156.6	150.9	147.6
77.5°	114.5	117.5	119.7	116.1	112.9
80°	81.7	83.9	85.3	83.8	80.8
82.5°	52.5	54.1	54.8	54.7	52.7
85°	28.6	29.1	30.4	30.7	29.7
87.5°	11.0	11.8	12.1	13.0	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)