

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: P489096

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-27-120-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: P489096
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-27-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

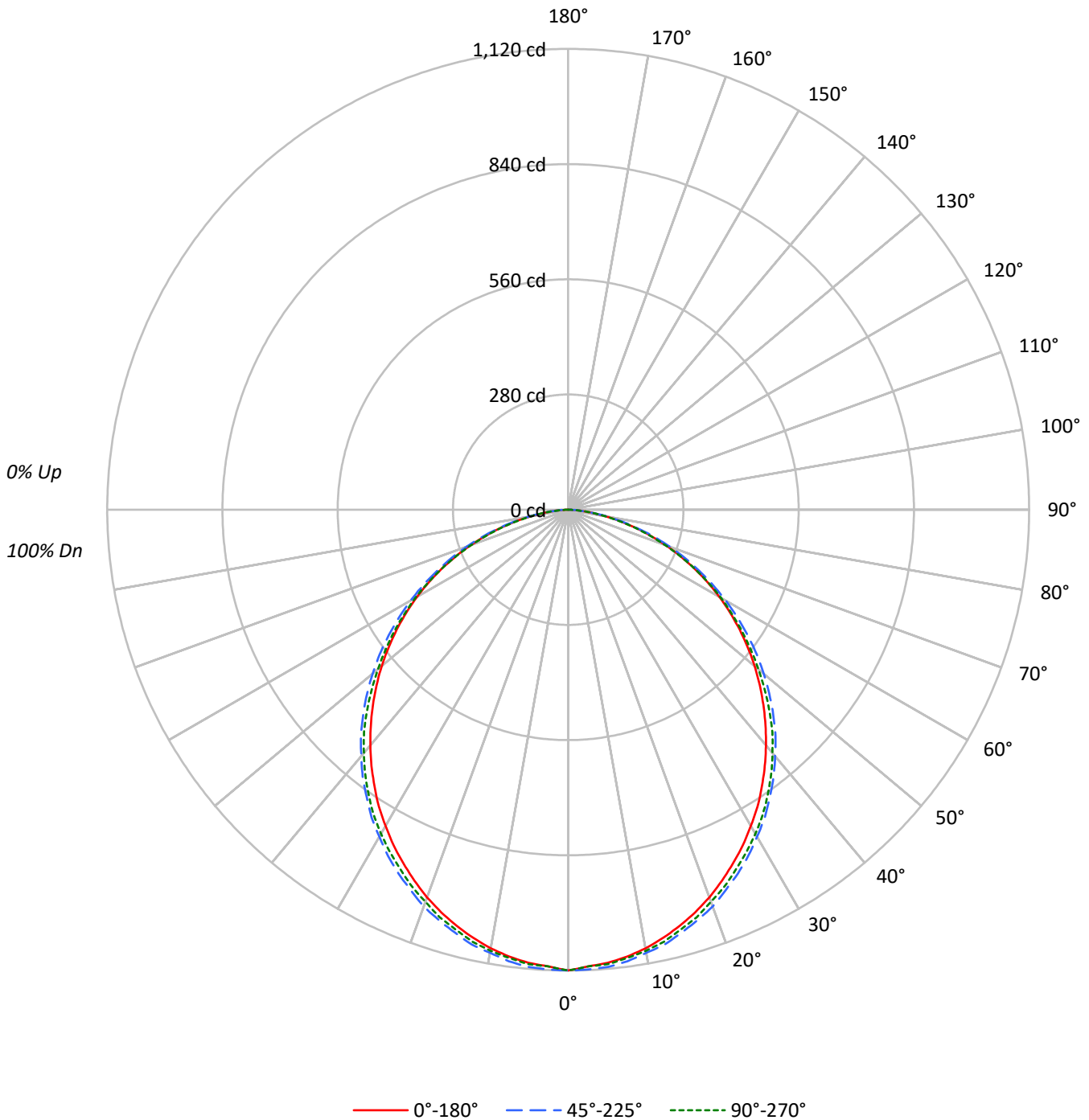
Lumens per Lamp: N/A
Luminaire Lumens: 2943.9 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P489096

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2STD-27-120-EDD-90

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°	3013	3013	3013
5°	2985	3014	2995
10°	2958	2988	2974
15°	2917	2964	2943
20°	2871	2939	2904
25°	2815	2897	2864
30°	2758	2852	2826
35°	2696	2803	2777
40°	2626	2747	2712
45°	2552	2681	2630
50°	2476	2596	2527
55°	2386	2497	2421
60°	2284	2379	2306
65°	2153	2235	2154
70°	1981	2061	1959
75°	1745	1823	1718
80°	1418	1478	1401
85°	988	1053	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.5	3.6
10°-20°	298.8	10.2
20°-30°	445.7	15.1
30°-40°	528.2	17.9
40°-50°	534.4	18.2
50°-60°	466.7	15.9
60°-70°	341.1	11.6
70°-80°	181.5	6.2
80°-90°	41.9	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°	850.0	28.9
0°-40°	1378.2	46.8
0°-60°	2379.4	80.8
0°-90°	2943.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2943.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1105	1107	1116	1118	1109	105
15°	1047	1054	1064	1070	1056	295
25°	948	960	976	979	964	437
35°	821	834	853	859	845	513
45°	671	683	704	705	691	517
55°	508	519	532	525	516	455
65°	338	345	351	344	338	335
75°	168	172	175	169	165	178
85°	32	32	34	34	33	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.8	1119.8	1119.8	1119.8	1119.8
2.5°	1111.0	1114.6	1118.4	1120.0	1110.9
5°	1105.2	1107.3	1115.6	1118.1	1108.7
7.5°	1095.6	1098.8	1106.8	1108.0	1098.9
10°	1082.5	1088.1	1093.5	1099.3	1088.3
12.5°	1065.9	1073.4	1082.5	1083.6	1075.2
15°	1047.1	1054.1	1064.0	1070.4	1056.5
17.5°	1026.1	1032.8	1045.7	1046.8	1038.4
20°	1002.6	1011.0	1026.4	1029.1	1014.1
22.5°	976.0	987.3	1000.2	1002.7	991.7
25°	948.1	959.8	975.7	979.3	964.5
27.5°	919.0	930.2	948.0	950.6	938.1
30°	887.7	898.2	917.8	922.1	909.4
32.5°	856.0	866.5	888.2	891.8	879.4
35°	820.7	833.6	853.3	859.2	845.4
37.5°	784.8	797.3	819.7	825.1	810.1
40°	747.6	760.0	782.0	786.4	772.1
42.5°	709.6	721.9	745.5	746.2	734.3
45°	670.7	682.6	704.5	705.1	691.2
47.5°	631.3	643.3	662.9	660.7	647.6
50°	591.4	602.8	620.0	615.5	603.7
52.5°	550.1	561.2	577.4	570.1	559.1
55°	508.5	518.8	532.3	524.6	516.0
57.5°	466.7	477.0	487.4	479.6	472.1
60°	424.4	433.5	442.0	434.1	428.4
62.5°	381.5	389.3	396.7	389.1	383.7
65°	338.1	345.0	351.0	344.0	338.3
67.5°	294.9	300.8	306.4	299.1	293.2
70°	251.8	256.8	261.9	254.4	249.0
72.5°	209.2	213.6	218.2	210.9	206.1
75°	167.8	171.6	175.3	168.9	165.2
77.5°	128.2	131.5	134.0	130.0	126.3
80°	91.5	93.9	95.4	93.8	90.4
82.5°	58.8	60.5	61.4	61.2	59.0
85°	32.0	32.5	34.1	34.4	33.2
87.5°	12.4	13.2	13.5	14.6	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)