

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: P489085

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-27-120-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: P489085
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-LD4-2LO-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

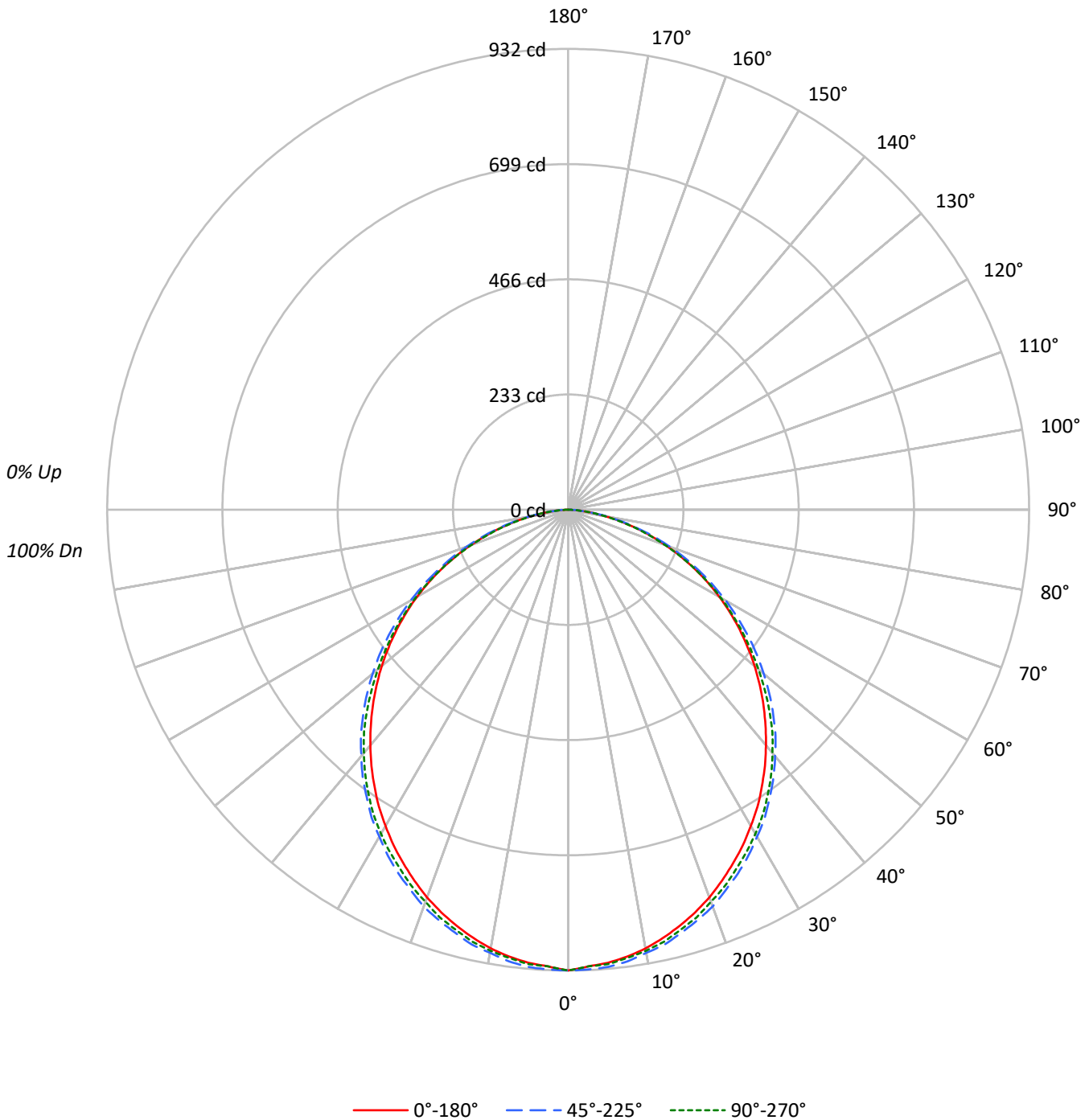
Lumens per Lamp: N/A
Luminaire Lumens: 2449.9 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

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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	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°	2508	2508	2508
5°	2484	2508	2492
10°	2462	2487	2475
15°	2428	2467	2449
20°	2389	2446	2417
25°	2343	2411	2383
30°	2295	2373	2352
35°	2244	2333	2311
40°	2185	2286	2257
45°	2124	2231	2189
50°	2060	2160	2103
55°	1985	2078	2015
60°	1901	1980	1919
65°	1792	1860	1793
70°	1648	1715	1630
75°	1451	1517	1430
80°	1179	1230	1165
85°	821	874	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	3.6
10°-20°	248.7	10.2
20°-30°	370.9	15.1
30°-40°	439.5	17.9
40°-50°	444.8	18.2
50°-60°	388.4	15.9
60°-70°	283.9	11.6
70°-80°	151.0	6.2
80°-90°	34.9	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°	707.4	28.9
0°-40°	1146.9	46.8
0°-60°	1980.1	80.8
0°-90°	2449.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2449.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	920	922	928	930	923	87
15°	871	877	885	891	879	246
25°	789	799	812	815	803	364
35°	683	694	710	715	704	427
45°	558	568	586	587	575	431
55°	423	432	443	437	429	378
65°	281	287	292	286	282	278
75°	140	143	146	141	138	148
85°	27	27	28	29	28	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	931.9	931.9	931.9	931.9	931.9
2.5°	924.6	927.6	930.7	932.0	924.5
5°	919.7	921.5	928.4	930.5	922.6
7.5°	911.8	914.4	921.1	922.0	914.5
10°	900.9	905.5	910.0	914.9	905.6
12.5°	887.0	893.3	900.9	901.8	894.8
15°	871.4	877.2	885.4	890.8	879.2
17.5°	853.9	859.5	870.2	871.2	864.2
20°	834.4	841.4	854.2	856.4	843.9
22.5°	812.2	821.7	832.3	834.5	825.3
25°	789.0	798.7	812.0	815.0	802.6
27.5°	764.8	774.1	788.9	791.1	780.7
30°	738.7	747.5	763.8	767.4	756.8
32.5°	712.3	721.1	739.1	742.1	731.9
35°	683.0	693.7	710.1	715.1	703.5
37.5°	653.1	663.5	682.1	686.6	674.2
40°	622.1	632.4	650.8	654.5	642.5
42.5°	590.5	600.8	620.4	621.0	611.1
45°	558.2	568.1	586.3	586.8	575.2
47.5°	525.3	535.3	551.7	549.8	538.9
50°	492.1	501.7	515.9	512.2	502.4
52.5°	457.8	467.0	480.5	474.5	465.2
55°	423.2	431.8	443.0	436.6	429.4
57.5°	388.4	397.0	405.6	399.1	392.9
60°	353.2	360.8	367.9	361.3	356.5
62.5°	317.5	324.0	330.1	323.8	319.3
65°	281.4	287.1	292.1	286.3	281.6
67.5°	245.4	250.3	255.0	248.9	244.0
70°	209.5	213.7	218.0	211.7	207.2
72.5°	174.1	177.8	181.6	175.5	171.6
75°	139.6	142.8	145.9	140.6	137.5
77.5°	106.7	109.4	111.6	108.2	105.1
80°	76.1	78.2	79.4	78.1	75.2
82.5°	48.9	50.4	51.1	51.0	49.1
85°	26.6	27.1	28.3	28.6	27.7
87.5°	10.3	11.0	11.3	12.1	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)