

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: P489084

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-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: P489084
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-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

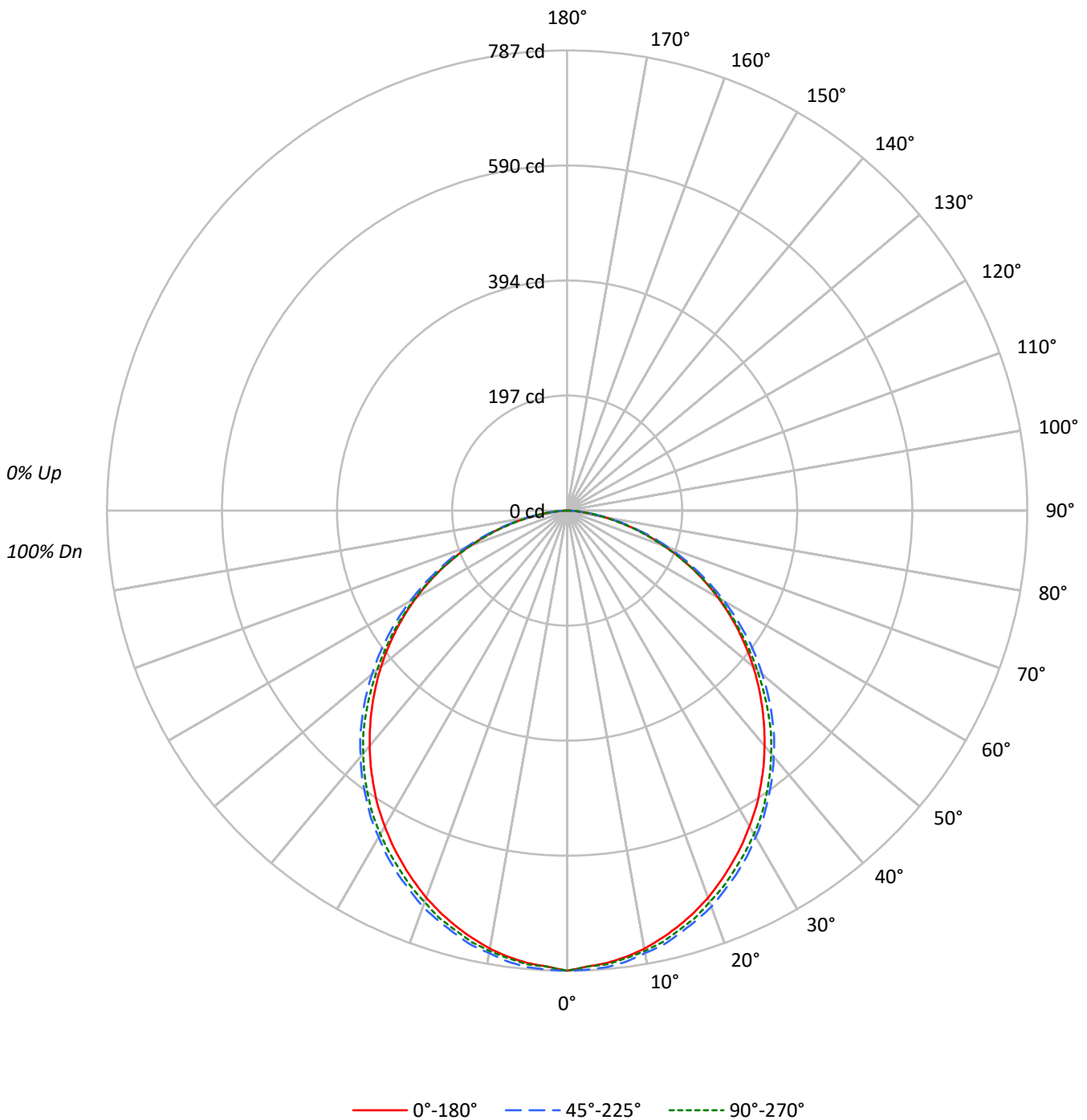
Lumens per Lamp: N/A
Luminaire Lumens: 2068.7 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P489084

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

Luminous Intensity Polar Plot





TEST NUMBER: P489084

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2LO-27-120-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	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°	2118	2118	2118
5°	2098	2118	2105
10°	2079	2100	2090
15°	2050	2083	2068
20°	2018	2066	2041
25°	1978	2036	2012
30°	1938	2004	1986
35°	1895	1970	1951
40°	1845	1930	1906
45°	1794	1884	1848
50°	1740	1824	1776
55°	1677	1755	1701
60°	1605	1672	1620
65°	1513	1571	1514
70°	1392	1448	1376
75°	1226	1281	1207
80°	996	1040	984
85°	695	738	722



TEST NUMBER: P489084

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	3.6
10°-20°	210.0	10.2
20°-30°	313.2	15.1
30°-40°	371.2	17.9
40°-50°	375.6	18.2
50°-60°	328.0	15.9
60°-70°	239.7	11.6
70°-80°	127.5	6.2
80°-90°	29.5	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°	597.3	28.9
0°-40°	968.5	46.8
0°-60°	1672.0	80.8
0°-90°	2068.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2068.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	777	778	784	786	779	74
15°	736	741	748	752	742	207
25°	666	674	686	688	678	307
35°	577	586	600	604	594	361
45°	471	480	495	496	486	364
55°	357	365	374	369	363	319
65°	238	242	247	242	238	235
75°	118	121	123	119	116	125
85°	22	23	24	24	23	28
90°	0	0	0	0	0	



TEST NUMBER: P489084

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	786.9	786.9	786.9	786.9	786.9
2.5°	780.7	783.3	785.9	787.0	780.6
5°	776.6	778.1	783.9	785.7	779.1
7.5°	769.9	772.1	777.8	778.6	772.2
10°	760.7	764.6	768.4	772.5	764.7
12.5°	749.0	754.3	760.7	761.4	755.5
15°	735.8	740.7	747.7	752.2	742.4
17.5°	721.0	725.8	734.8	735.6	729.7
20°	704.6	710.5	721.3	723.2	712.6
22.5°	685.9	693.8	702.8	704.6	696.8
25°	666.3	674.5	685.6	688.2	677.7
27.5°	645.8	653.6	666.2	668.0	659.2
30°	623.8	631.2	644.9	648.0	639.0
32.5°	601.5	608.9	624.1	626.7	618.0
35°	576.7	585.8	599.6	603.8	594.0
37.5°	551.5	560.3	576.0	579.8	569.3
40°	525.3	534.0	549.5	552.6	542.6
42.5°	498.6	507.3	523.9	524.4	516.0
45°	471.3	479.7	495.1	495.5	485.7
47.5°	443.6	452.0	465.8	464.3	455.1
50°	415.6	423.6	435.7	432.5	424.3
52.5°	386.5	394.3	405.7	400.6	392.9
55°	357.4	364.6	374.1	368.7	362.6
57.5°	327.9	335.2	342.5	337.0	331.8
60°	298.2	304.6	310.6	305.1	301.0
62.5°	268.1	273.6	278.7	273.4	269.6
65°	237.6	242.4	246.7	241.8	237.7
67.5°	207.2	211.3	215.3	210.2	206.0
70°	176.9	180.4	184.0	178.8	174.9
72.5°	147.0	150.1	153.3	148.2	144.9
75°	117.9	120.6	123.2	118.7	116.1
77.5°	90.1	92.4	94.2	91.3	88.8
80°	64.3	66.0	67.1	65.9	63.5
82.5°	41.3	42.5	43.1	43.0	41.5
85°	22.5	22.9	23.9	24.2	23.4
87.5°	8.7	9.3	9.5	10.2	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)