

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: P489061

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-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: P489061
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-LD4-1STD-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

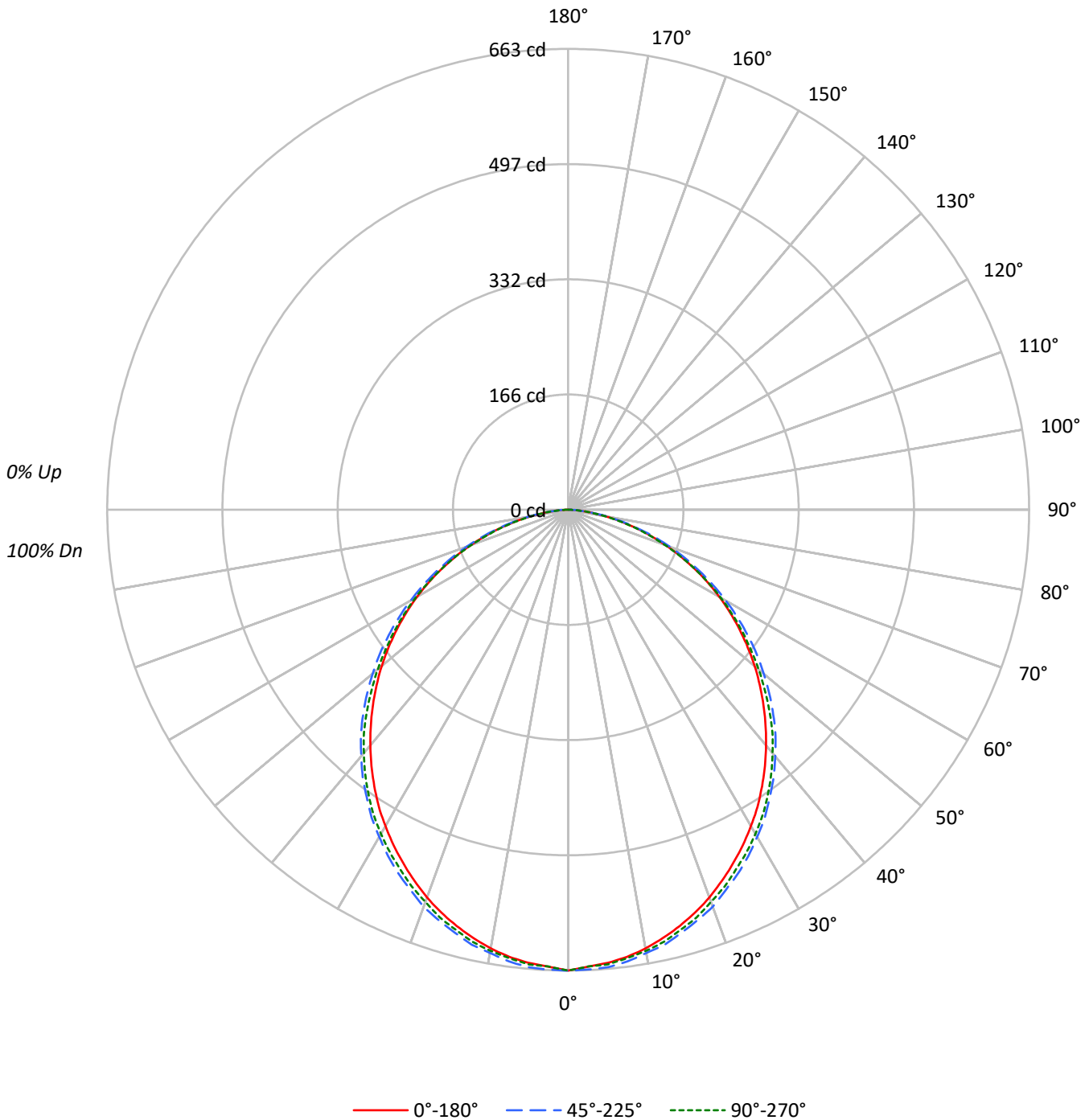
Lumens per Lamp: N/A
Luminaire Lumens: 1743.2 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P489061

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489061

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-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°	1784	1784	1784
5°	1768	1784	1773
10°	1752	1769	1761
15°	1727	1755	1743
20°	1700	1741	1720
25°	1667	1715	1696
30°	1633	1689	1673
35°	1597	1660	1645
40°	1555	1627	1606
45°	1512	1588	1558
50°	1466	1537	1497
55°	1413	1479	1434
60°	1352	1409	1365
65°	1275	1324	1275
70°	1173	1220	1160
75°	1032	1079	1017
80°	840	876	829
85°	584	624	608



TEST NUMBER: P489061

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	3.6
10°-20°	177.0	10.2
20°-30°	263.9	15.1
30°-40°	312.8	17.9
40°-50°	316.5	18.2
50°-60°	276.4	15.9
60°-70°	202.0	11.6
70°-80°	107.5	6.2
80°-90°	24.8	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°	503.3	28.9
0°-40°	816.1	46.8
0°-60°	1408.9	80.8
0°-90°	1743.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1743.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	663	663	663	663	663	
5°	654	656	661	662	656	62
15°	620	624	630	634	626	175
25°	561	568	578	580	571	259
35°	486	494	505	509	501	304
45°	397	404	417	418	409	306
55°	301	307	315	311	306	269
65°	200	204	208	204	200	198
75°	99	102	104	100	98	106
85°	19	19	20	20	20	24
90°	0	0	0	0	0	



TEST NUMBER: P489061

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	663.1	663.1	663.1	663.1	663.1
2.5°	657.9	660.0	662.2	663.2	657.8
5°	654.4	655.7	660.6	662.1	656.5
7.5°	648.8	650.6	655.4	656.1	650.7
10°	641.0	644.3	647.5	651.0	644.4
12.5°	631.1	635.6	641.0	641.6	636.7
15°	620.0	624.2	630.0	633.8	625.6
17.5°	607.6	611.6	619.2	619.9	614.9
20°	593.7	598.7	607.8	609.4	600.5
22.5°	577.9	584.6	592.2	593.8	587.2
25°	561.4	568.3	577.7	579.9	571.1
27.5°	544.2	550.8	561.4	562.9	555.5
30°	525.6	531.9	543.5	546.0	538.5
32.5°	506.9	513.1	525.9	528.1	520.7
35°	486.0	493.6	505.3	508.8	500.6
37.5°	464.7	472.1	485.4	488.5	479.7
40°	442.7	450.0	463.1	465.7	457.2
42.5°	420.2	427.5	441.4	441.8	434.8
45°	397.2	404.2	417.2	417.5	409.3
47.5°	373.8	380.9	392.5	391.2	383.5
50°	350.2	356.9	367.1	364.5	357.5
52.5°	325.7	332.3	341.9	337.6	331.0
55°	301.1	307.2	315.2	310.7	305.6
57.5°	276.3	282.5	288.6	284.0	279.6
60°	251.3	256.7	261.8	257.1	253.7
62.5°	225.9	230.5	234.9	230.4	227.2
65°	200.2	204.3	207.9	203.7	200.3
67.5°	174.6	178.1	181.4	177.1	173.6
70°	149.1	152.0	155.1	150.7	147.4
72.5°	123.9	126.5	129.2	124.9	122.1
75°	99.3	101.6	103.8	100.0	97.8
77.5°	75.9	77.9	79.4	77.0	74.8
80°	54.2	55.6	56.5	55.5	53.5
82.5°	34.8	35.9	36.3	36.3	35.0
85°	18.9	19.3	20.2	20.4	19.7
87.5°	7.3	7.8	8.0	8.6	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)