

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: P488653

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-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: P488653
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-12-4-INS-A19156-LD4-1LO-27-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

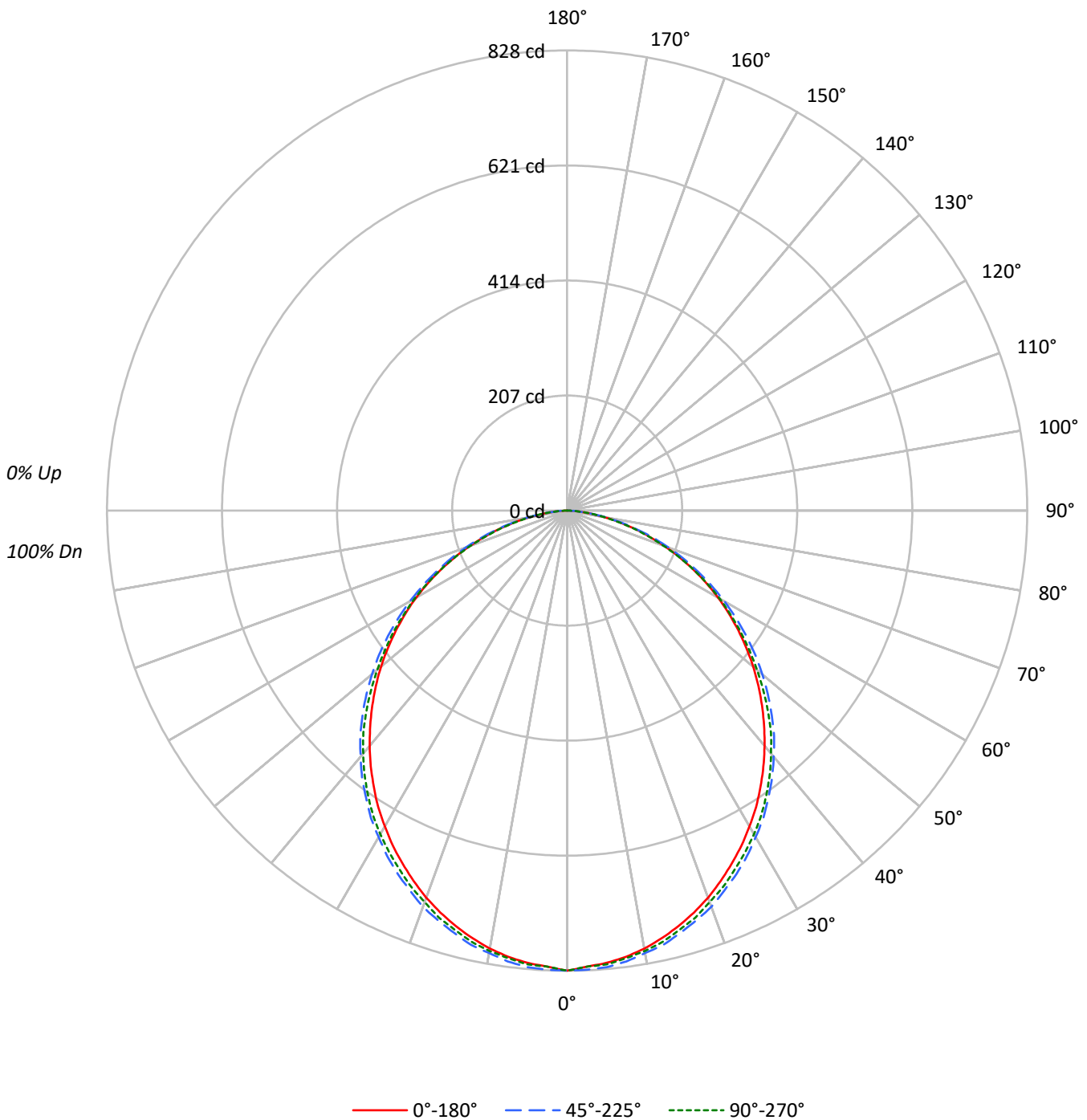
Lumens per Lamp: N/A
Luminaire Lumens: 2176.3 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P488653

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1LO-27-120-EDD

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°	2228	2228	2228
5°	2207	2228	2214
10°	2187	2209	2198
15°	2157	2191	2176
20°	2123	2173	2147
25°	2081	2142	2117
30°	2039	2108	2089
35°	1993	2072	2053
40°	1942	2031	2005
45°	1887	1982	1945
50°	1830	1919	1868
55°	1764	1846	1790
60°	1689	1759	1704
65°	1591	1652	1592
70°	1464	1523	1448
75°	1289	1347	1269
80°	1048	1093	1035
85°	729	778	760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	3.6
10°-20°	220.9	10.2
20°-30°	329.5	15.1
30°-40°	390.5	17.9
40°-50°	395.1	18.2
50°-60°	345.0	15.9
60°-70°	252.1	11.6
70°-80°	134.2	6.2
80°-90°	31.0	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°	628.4	28.9
0°-40°	1018.8	46.8
0°-60°	1759.0	80.8
0°-90°	2176.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2176.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	817	819	825	827	820	77
15°	774	779	787	791	781	218
25°	701	710	721	724	713	323
35°	607	616	631	635	625	379
45°	496	505	521	521	511	383
55°	376	384	394	388	382	336
65°	250	255	260	254	250	247
75°	124	127	130	125	122	132
85°	24	24	25	25	25	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	827.8	827.8	827.8	827.8	827.8
2.5°	821.3	824.0	826.8	828.0	821.2
5°	817.0	818.6	824.7	826.6	819.6
7.5°	809.9	812.3	818.2	819.1	812.3
10°	800.3	804.4	808.4	812.7	804.5
12.5°	787.9	793.5	800.3	801.1	794.8
15°	774.1	779.2	786.6	791.3	781.0
17.5°	758.5	763.5	773.0	773.9	767.7
20°	741.2	747.4	758.8	760.8	749.6
22.5°	721.5	729.9	739.4	741.3	733.1
25°	700.9	709.5	721.3	723.9	713.0
27.5°	679.4	687.6	700.8	702.7	693.5
30°	656.2	664.0	678.5	681.7	672.3
32.5°	632.8	640.5	656.6	659.3	650.1
35°	606.7	616.2	630.8	635.2	624.9
37.5°	580.2	589.4	606.0	609.9	598.9
40°	552.7	561.8	578.1	581.4	570.8
42.5°	524.5	533.7	551.1	551.6	542.8
45°	495.8	504.6	520.8	521.3	511.0
47.5°	466.7	475.6	490.0	488.4	478.8
50°	437.2	445.6	458.3	455.0	446.3
52.5°	406.6	414.8	426.8	421.5	413.3
55°	375.9	383.5	393.5	387.8	381.5
57.5°	345.0	352.7	360.3	354.6	349.0
60°	313.8	320.5	326.8	320.9	316.7
62.5°	282.0	287.8	293.2	287.6	283.7
65°	249.9	255.0	259.5	254.3	250.1
67.5°	218.0	222.3	226.5	221.1	216.7
70°	186.1	189.8	193.6	188.1	184.0
72.5°	154.6	157.9	161.3	155.9	152.4
75°	124.0	126.9	129.6	124.9	122.1
77.5°	94.8	97.2	99.1	96.1	93.4
80°	67.6	69.4	70.5	69.3	66.8
82.5°	43.5	44.8	45.4	45.3	43.6
85°	23.6	24.1	25.2	25.4	24.6
87.5°	9.1	9.7	10.0	10.8	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)