

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: P488660

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-50-120-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: P488660
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-50-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

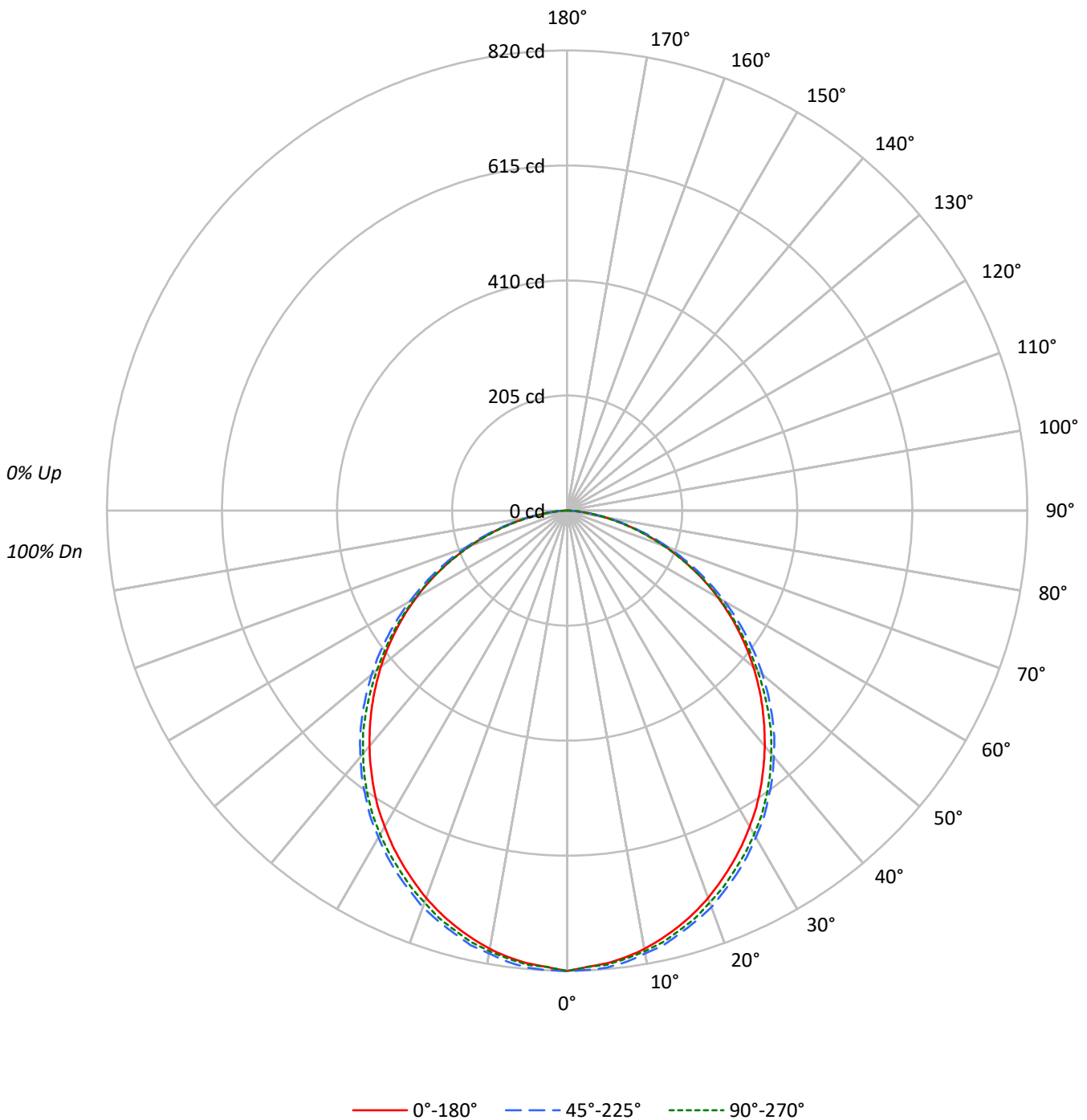
Lumens per Lamp: N/A
Luminaire Lumens: 2157.2 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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°	2208	2208	2208
5°	2187	2208	2195
10°	2168	2190	2179
15°	2138	2172	2157
20°	2104	2154	2128
25°	2063	2123	2098
30°	2021	2090	2071
35°	1976	2054	2035
40°	1924	2013	1988
45°	1870	1965	1928
50°	1814	1902	1852
55°	1748	1830	1774
60°	1674	1743	1689
65°	1577	1638	1578
70°	1452	1510	1435
75°	1278	1336	1259
80°	1038	1083	1027
85°	722	772	753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	3.6
10°-20°	219.0	10.2
20°-30°	326.6	15.1
30°-40°	387.0	17.9
40°-50°	391.6	18.2
50°-60°	342.0	15.9
60°-70°	249.9	11.6
70°-80°	133.0	6.2
80°-90°	30.7	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°	622.9	28.9
0°-40°	1009.9	46.8
0°-60°	1743.5	80.8
0°-90°	2157.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2157.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	810	811	817	819	812	77
15°	767	772	780	784	774	216
25°	695	703	715	718	707	320
35°	601	611	625	630	620	376
45°	492	500	516	517	506	379
55°	373	380	390	384	378	333
65°	248	253	257	252	248	245
75°	123	126	128	124	121	131
85°	23	24	25	25	24	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	820.5	820.5	820.5	820.5	820.5
2.5°	814.1	816.8	819.5	820.7	814.0
5°	809.8	811.4	817.4	819.3	812.4
7.5°	802.8	805.1	811.0	811.9	805.2
10°	793.3	797.4	801.3	805.6	797.4
12.5°	781.0	786.6	793.3	794.0	787.9
15°	767.3	772.4	779.7	784.4	774.2
17.5°	751.9	756.8	766.2	767.1	760.9
20°	734.7	740.8	752.1	754.1	743.1
22.5°	715.2	723.5	732.9	734.8	726.7
25°	694.8	703.3	714.9	717.6	706.7
27.5°	673.4	681.6	694.7	696.6	687.4
30°	650.5	658.2	672.5	675.7	666.4
32.5°	627.2	634.9	650.8	653.5	644.4
35°	601.4	610.8	625.3	629.6	619.5
37.5°	575.1	584.2	600.6	604.6	593.6
40°	547.8	556.9	573.0	576.3	565.8
42.5°	519.9	529.0	546.3	546.8	538.1
45°	491.5	500.2	516.3	516.7	506.5
47.5°	462.6	471.4	485.7	484.1	474.5
50°	433.3	441.7	454.3	451.0	442.4
52.5°	403.1	411.2	423.1	417.8	409.7
55°	372.6	380.2	390.1	384.4	378.1
57.5°	342.0	349.6	357.2	351.4	346.0
60°	311.0	317.7	323.9	318.1	313.9
62.5°	279.5	285.3	290.7	285.1	281.2
65°	247.7	252.8	257.2	252.1	247.9
67.5°	216.1	220.4	224.5	219.2	214.8
70°	184.5	188.2	191.9	186.5	182.4
72.5°	153.3	156.5	159.9	154.6	151.1
75°	122.9	125.8	128.5	123.8	121.1
77.5°	94.0	96.3	98.2	95.2	92.6
80°	67.0	68.8	69.9	68.7	66.3
82.5°	43.1	44.4	45.0	44.9	43.3
85°	23.4	23.9	25.0	25.2	24.4
87.5°	9.1	9.7	9.9	10.7	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)