

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: P488662

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-20-120-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: P488662
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-LD4-1STD-20-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

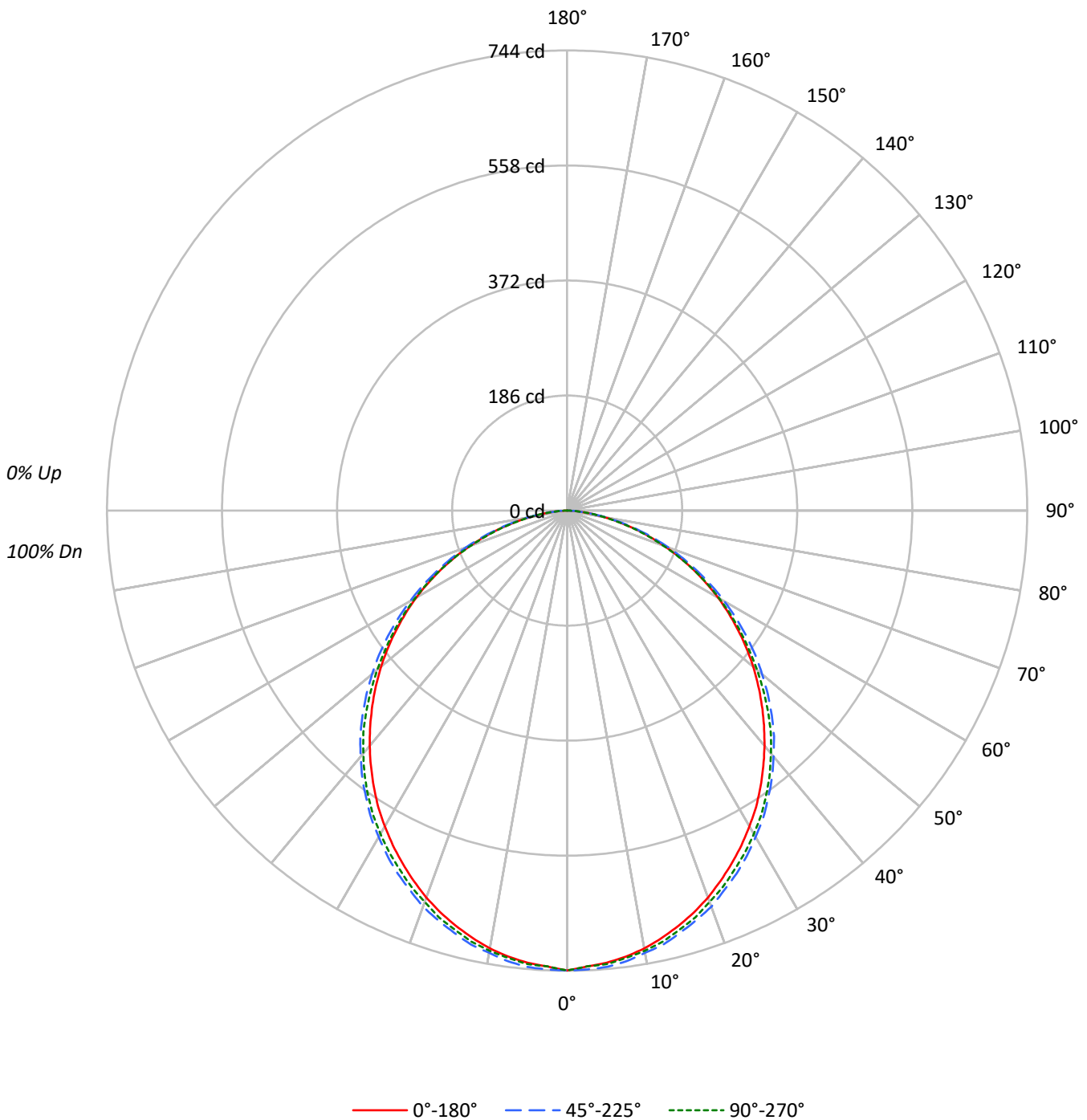
Lumens per Lamp: N/A
Luminaire Lumens: 1954.7 lumens
Efficiency: N/A
Efficacy: 58.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2001	2001	2001
5°	1982	2001	1988
10°	1964	1984	1974
15°	1937	1968	1954
20°	1906	1952	1928
25°	1869	1923	1901
30°	1831	1894	1876
35°	1790	1861	1844
40°	1744	1824	1801
45°	1695	1780	1747
50°	1644	1723	1678
55°	1584	1658	1607
60°	1517	1580	1531
65°	1429	1484	1430
70°	1316	1368	1301
75°	1158	1210	1141
80°	941	982	930
85°	655	698	682



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	3.6
10°-20°	198.4	10.2
20°-30°	295.9	15.1
30°-40°	350.7	17.9
40°-50°	354.9	18.2
50°-60°	309.9	15.9
60°-70°	226.5	11.6
70°-80°	120.5	6.2
80°-90°	27.9	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°	564.4	28.9
0°-40°	915.1	46.8
0°-60°	1579.9	80.8
0°-90°	1954.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1954.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	734	735	741	742	736	70
15°	695	700	706	711	702	196
25°	630	637	648	650	640	290
35°	545	554	567	570	561	341
45°	445	453	468	468	459	344
55°	338	344	354	348	343	302
65°	224	229	233	228	225	222
75°	111	114	116	112	110	118
85°	21	22	23	23	22	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	743.5	743.5	743.5	743.5	743.5
2.5°	737.7	740.1	742.6	743.7	737.6
5°	733.8	735.2	740.7	742.4	736.1
7.5°	727.5	729.6	734.9	735.7	729.6
10°	718.8	722.5	726.1	729.9	722.6
12.5°	707.7	712.7	718.8	719.5	713.9
15°	695.2	699.9	706.5	710.7	701.5
17.5°	681.3	685.8	694.3	695.1	689.5
20°	665.7	671.3	681.5	683.3	673.3
22.5°	648.1	655.6	664.1	665.8	658.4
25°	629.5	637.3	647.8	650.2	640.4
27.5°	610.2	617.6	629.5	631.2	622.9
30°	589.4	596.4	609.4	612.3	603.8
32.5°	568.4	575.3	589.7	592.1	583.9
35°	545.0	553.5	566.6	570.5	561.3
37.5°	521.1	529.4	544.3	547.8	537.9
40°	496.4	504.6	519.2	522.2	512.7
42.5°	471.1	479.3	495.0	495.5	487.6
45°	445.3	453.2	467.8	468.2	459.0
47.5°	419.2	427.1	440.1	438.7	430.0
50°	392.7	400.3	411.6	408.7	400.9
52.5°	365.2	372.6	383.4	378.6	371.2
55°	337.7	344.5	353.5	348.4	342.6
57.5°	309.9	316.7	323.6	318.5	313.5
60°	281.8	287.9	293.5	288.2	284.4
62.5°	253.3	258.5	263.4	258.3	254.8
65°	224.5	229.1	233.1	228.4	224.6
67.5°	195.8	199.7	203.4	198.6	194.7
70°	167.2	170.5	173.9	168.9	165.3
72.5°	138.9	141.8	144.9	140.1	136.9
75°	111.4	113.9	116.4	112.2	109.7
77.5°	85.1	87.3	89.0	86.3	83.9
80°	60.7	62.4	63.4	62.3	60.0
82.5°	39.0	40.2	40.7	40.7	39.2
85°	21.2	21.6	22.6	22.9	22.1
87.5°	8.2	8.8	9.0	9.7	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)