

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: P488730

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-40-120-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: P488730
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-LD4-3LO-40-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

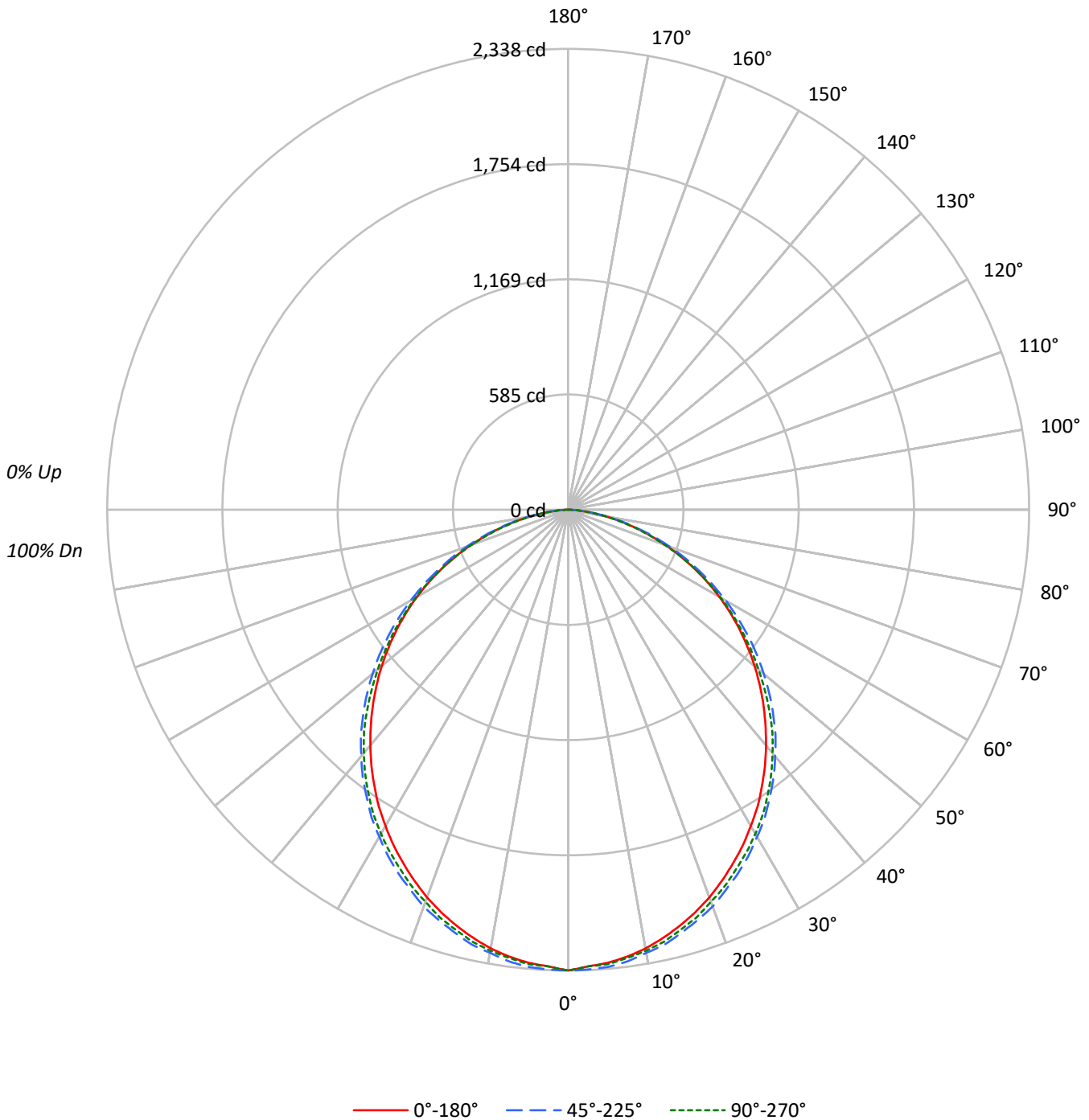
Lumens per Lamp: N/A
Luminaire Lumens: 6145.9 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	6291	6291	6291
5°	6232	6291	6252
10°	6175	6238	6208
15°	6090	6188	6145
20°	5994	6136	6062
25°	5877	6048	5978
30°	5758	5954	5899
35°	5629	5852	5798
40°	5482	5735	5662
45°	5329	5598	5492
50°	5169	5418	5277
55°	4981	5214	5054
60°	4769	4966	4813
65°	4494	4667	4497
70°	4135	4302	4090
75°	3641	3806	3586
80°	2960	3087	2926
85°	2059	2195	2143



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.2	3.6
10°-20°	623.9	10.2
20°-30°	930.5	15.1
30°-40°	1102.7	17.9
40°-50°	1115.7	18.2
50°-60°	974.4	15.9
60°-70°	712.1	11.6
70°-80°	378.9	6.2
80°-90°	87.6	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°	1774.6	28.9
0°-40°	2877.2	46.8
0°-60°	4967.4	80.8
0°-90°	6145.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6145.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2338	2338	2338	2338	2338	
5°	2307	2312	2329	2334	2314	219
15°	2186	2201	2221	2235	2206	616
25°	1979	2004	2037	2044	2014	912
35°	1713	1740	1781	1794	1765	1072
45°	1400	1425	1471	1472	1443	1080
55°	1062	1083	1111	1095	1077	949
65°	706	720	733	718	706	698
75°	350	358	366	353	345	372
85°	67	68	71	72	69	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2337.7	2337.7	2337.7	2337.7	2337.7
2.5°	2319.4	2327.0	2334.8	2338.2	2319.2
5°	2307.2	2311.6	2328.9	2334.3	2314.5
7.5°	2287.3	2293.8	2310.6	2313.1	2294.1
10°	2260.0	2271.7	2282.9	2295.1	2271.9
12.5°	2225.2	2241.0	2260.0	2262.2	2244.6
15°	2185.9	2200.6	2221.3	2234.7	2205.7
17.5°	2142.1	2156.2	2183.0	2185.5	2167.9
20°	2093.1	2110.7	2142.8	2148.4	2117.0
22.5°	2037.6	2061.2	2088.0	2093.4	2070.3
25°	1979.4	2003.8	2036.9	2044.4	2013.5
27.5°	1918.5	1941.9	1979.2	1984.5	1958.5
30°	1853.2	1875.2	1916.1	1925.1	1898.5
32.5°	1787.0	1808.9	1854.2	1861.8	1835.9
35°	1713.4	1740.2	1781.4	1793.8	1764.8
37.5°	1638.4	1664.5	1711.2	1722.5	1691.3
40°	1560.7	1586.5	1632.6	1641.8	1611.9
42.5°	1481.3	1507.1	1556.3	1557.8	1533.0
45°	1400.2	1425.1	1470.9	1472.1	1443.1
47.5°	1317.9	1343.0	1383.9	1379.3	1352.0
50°	1234.6	1258.5	1294.3	1285.0	1260.4
52.5°	1148.4	1171.5	1205.4	1190.3	1167.1
55°	1061.7	1083.1	1111.4	1095.3	1077.3
57.5°	974.2	995.9	1017.6	1001.3	985.7
60°	886.1	905.1	922.8	906.3	894.3
62.5°	796.4	812.8	828.1	812.3	801.1
65°	705.8	720.2	732.9	718.3	706.3
67.5°	615.7	627.9	639.6	624.5	612.1
70°	525.6	536.1	546.8	531.2	519.8
72.5°	436.7	446.0	455.5	440.4	430.4
75°	350.2	358.3	366.1	352.7	344.9
77.5°	267.7	274.5	279.8	271.3	263.8
80°	191.0	196.1	199.2	195.8	188.8
82.5°	122.8	126.4	128.1	127.9	123.2
85°	66.7	68.0	71.1	71.8	69.4
87.5°	25.8	27.5	28.3	30.4	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)