

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: P488726

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-30-120-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: P488726
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-30-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

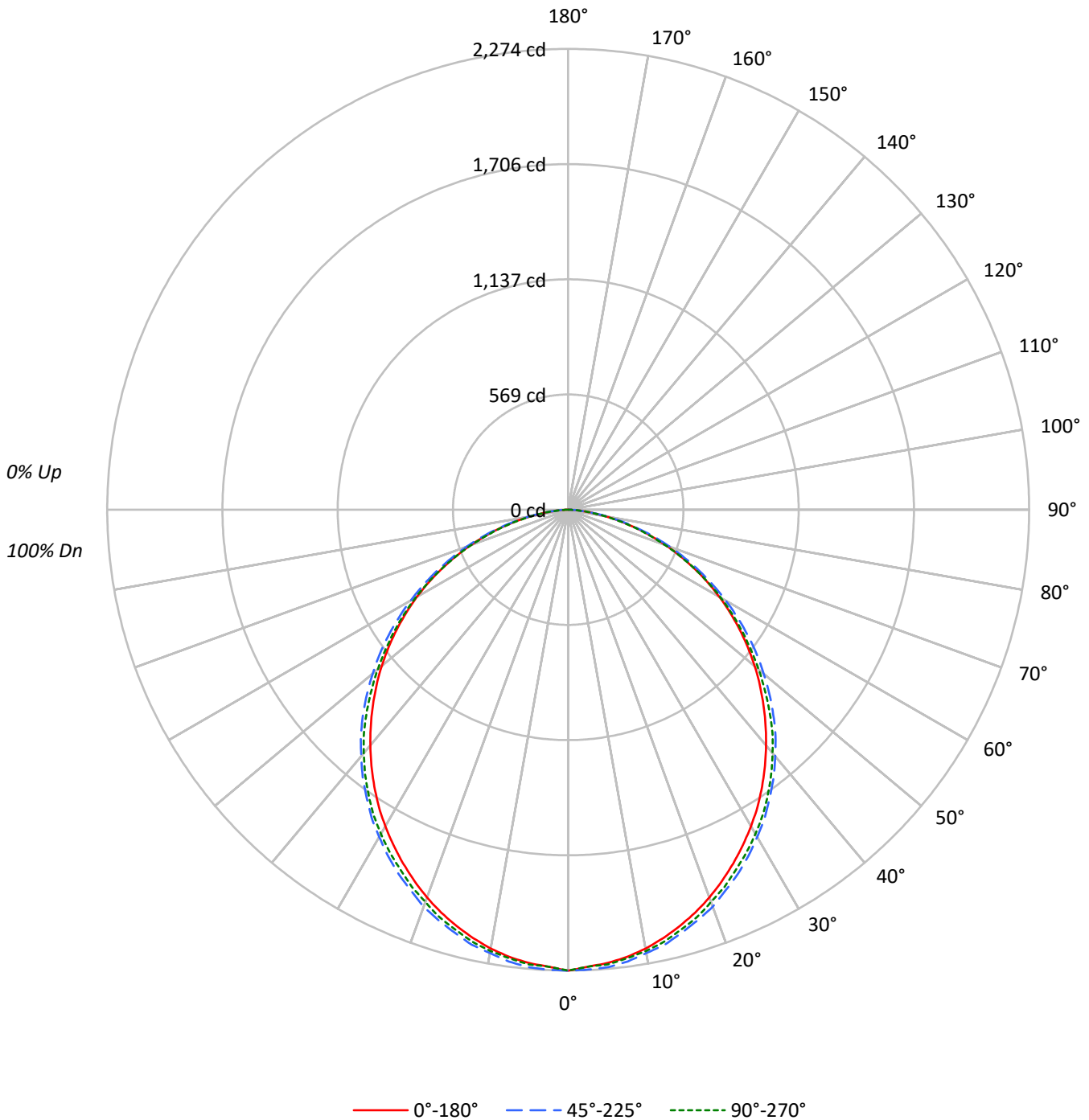
Lumens per Lamp: N/A
Luminaire Lumens: 5979.9 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6121	6121	6121
5°	6064	6121	6083
10°	6008	6069	6040
15°	5925	6021	5979
20°	5832	5971	5899
25°	5718	5885	5817
30°	5603	5793	5740
35°	5477	5694	5641
40°	5335	5580	5509
45°	5185	5446	5343
50°	5029	5272	5134
55°	4846	5073	4918
60°	4640	4832	4683
65°	4373	4541	4376
70°	4024	4186	3979
75°	3543	3703	3489
80°	2879	3005	2847
85°	2004	2137	2084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.2	3.6
10°-20°	607.0	10.2
20°-30°	905.4	15.1
30°-40°	1072.9	17.9
40°-50°	1085.6	18.2
50°-60°	948.1	15.9
60°-70°	692.8	11.6
70°-80°	368.7	6.2
80°-90°	85.2	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°	1726.6	28.9
0°-40°	2799.5	46.8
0°-60°	4833.2	80.8
0°-90°	5979.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5979.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2274	2274	2274	2274	2274	
5°	2245	2249	2266	2271	2252	213
15°	2127	2141	2161	2174	2146	600
25°	1926	1950	1982	1989	1959	887
35°	1667	1693	1733	1745	1717	1043
45°	1362	1387	1431	1432	1404	1051
55°	1033	1054	1081	1066	1048	923
65°	687	701	713	699	687	680
75°	341	349	356	343	336	362
85°	65	66	69	70	68	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2274.5	2274.5	2274.5	2274.5	2274.5
2.5°	2256.8	2264.1	2271.7	2275.0	2256.5
5°	2244.9	2249.2	2266.0	2271.2	2252.0
7.5°	2225.5	2231.9	2248.2	2250.6	2232.1
10°	2198.9	2210.3	2221.2	2233.1	2210.6
12.5°	2165.1	2180.5	2198.9	2201.1	2184.0
15°	2126.9	2141.1	2161.3	2174.3	2146.1
17.5°	2084.2	2098.0	2124.1	2126.4	2109.4
20°	2036.6	2053.7	2085.0	2090.4	2059.8
22.5°	1982.6	2005.6	2031.6	2036.8	2014.3
25°	1925.9	1949.6	1981.9	1989.2	1959.1
27.5°	1866.7	1889.4	1925.7	1930.9	1905.6
30°	1803.2	1824.5	1864.3	1873.1	1847.3
32.5°	1738.7	1760.1	1804.1	1811.5	1786.4
35°	1667.2	1693.2	1733.3	1745.4	1717.2
37.5°	1594.2	1619.5	1665.0	1675.9	1645.6
40°	1518.6	1543.7	1588.5	1597.5	1568.3
42.5°	1441.3	1466.4	1514.3	1515.7	1491.6
45°	1362.4	1386.6	1431.1	1432.3	1404.1
47.5°	1282.3	1306.7	1346.5	1342.0	1315.5
50°	1201.3	1224.5	1259.3	1250.3	1226.4
52.5°	1117.4	1139.9	1172.8	1158.1	1135.6
55°	1033.0	1053.9	1081.3	1065.7	1048.2
57.5°	947.9	969.0	990.1	974.2	959.1
60°	862.1	880.6	897.9	881.8	870.2
62.5°	774.9	790.8	805.7	790.3	779.4
65°	686.8	700.8	713.1	698.9	687.2
67.5°	599.1	610.9	622.3	607.6	595.5
70°	511.4	521.6	532.0	516.9	505.7
72.5°	424.9	433.9	443.2	428.5	418.7
75°	340.8	348.6	356.2	343.1	335.6
77.5°	260.4	267.1	272.3	264.0	256.7
80°	185.8	190.8	193.9	190.5	183.7
82.5°	119.4	123.0	124.7	124.4	119.9
85°	64.9	66.1	69.2	69.9	67.5
87.5°	25.1	26.8	27.5	29.6	27.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)