

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: P488704

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2STD-35-120-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: P488704
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-LD4-2STD-35-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

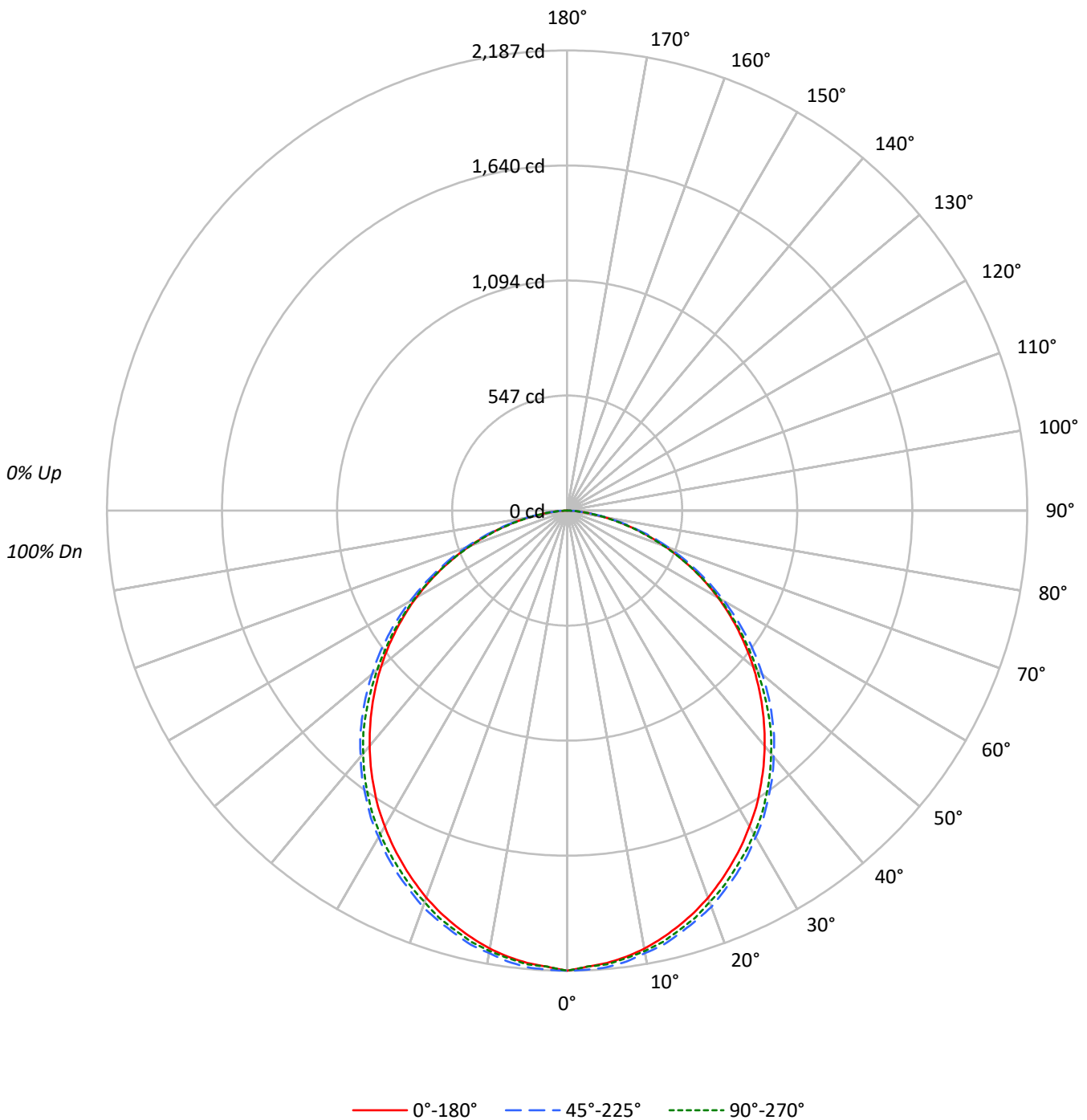
Lumens per Lamp: N/A
Luminaire Lumens: 5749.1 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	5885	5885	5885
5°	5830	5885	5848
10°	5777	5835	5807
15°	5697	5789	5748
20°	5607	5740	5671
25°	5498	5657	5592
30°	5387	5569	5519
35°	5265	5474	5423
40°	5129	5365	5297
45°	4985	5236	5137
50°	4835	5068	4936
55°	4659	4877	4728
60°	4461	4646	4503
65°	4204	4365	4207
70°	3869	4024	3825
75°	3406	3560	3354
80°	2768	2889	2737
85°	1927	2053	2004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.9	3.6
10°-20°	583.6	10.2
20°-30°	870.4	15.1
30°-40°	1031.5	17.9
40°-50°	1043.7	18.2
50°-60°	911.5	15.9
60°-70°	666.1	11.6
70°-80°	354.4	6.2
80°-90°	81.9	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°	1660.0	28.9
0°-40°	2691.5	46.8
0°-60°	4646.7	80.8
0°-90°	5749.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5749.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2187	2187	2187	2187	2187	
5°	2158	2162	2179	2184	2165	205
15°	2045	2058	2078	2090	2063	576
25°	1852	1874	1905	1912	1884	853
35°	1603	1628	1666	1678	1651	1002
45°	1310	1333	1376	1377	1350	1010
55°	993	1013	1040	1025	1008	888
65°	660	674	686	672	661	653
75°	328	335	342	330	323	348
85°	62	64	66	67	65	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2186.8	2186.8	2186.8	2186.8	2186.8
2.5°	2169.7	2176.7	2184.0	2187.2	2169.4
5°	2158.3	2162.4	2178.6	2183.6	2165.1
7.5°	2139.6	2145.7	2161.5	2163.7	2146.0
10°	2114.1	2125.0	2135.5	2146.9	2125.2
12.5°	2081.5	2096.3	2114.1	2116.1	2099.7
15°	2044.8	2058.5	2077.8	2090.4	2063.3
17.5°	2003.8	2017.0	2042.1	2044.4	2028.0
20°	1958.0	1974.4	2004.5	2009.7	1980.3
22.5°	1906.1	1928.2	1953.2	1958.2	1936.6
25°	1851.6	1874.4	1905.4	1912.4	1883.5
27.5°	1794.7	1816.5	1851.4	1856.4	1832.0
30°	1733.6	1754.1	1792.4	1800.8	1776.0
32.5°	1671.6	1692.1	1734.5	1741.6	1717.4
35°	1602.8	1627.9	1666.4	1678.0	1650.9
37.5°	1532.6	1557.0	1600.8	1611.2	1582.1
40°	1460.0	1484.1	1527.2	1535.8	1507.8
42.5°	1385.7	1409.8	1455.9	1457.2	1434.0
45°	1309.8	1333.1	1375.9	1377.0	1349.9
47.5°	1232.8	1256.3	1294.6	1290.2	1264.7
50°	1154.9	1177.2	1210.7	1202.1	1179.0
52.5°	1074.2	1095.9	1127.6	1113.4	1091.8
55°	993.1	1013.2	1039.6	1024.6	1007.7
57.5°	911.3	931.6	951.9	936.6	922.0
60°	828.9	846.6	863.3	847.8	836.6
62.5°	745.0	760.3	774.6	759.8	749.3
65°	660.3	673.7	685.6	671.9	660.7
67.5°	576.0	587.4	598.3	584.2	572.5
70°	491.7	501.5	511.5	496.9	486.2
72.5°	408.5	417.2	426.1	411.9	402.6
75°	327.6	335.1	342.4	329.9	322.6
77.5°	250.4	256.8	261.8	253.8	246.7
80°	178.6	183.4	186.4	183.2	176.6
82.5°	114.8	118.2	119.8	119.6	115.3
85°	62.4	63.6	66.5	67.2	64.9
87.5°	24.2	25.7	26.4	28.5	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)