

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: P489140

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-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: P489140
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-24-2-INS-A19156-LD4-3STD-50-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

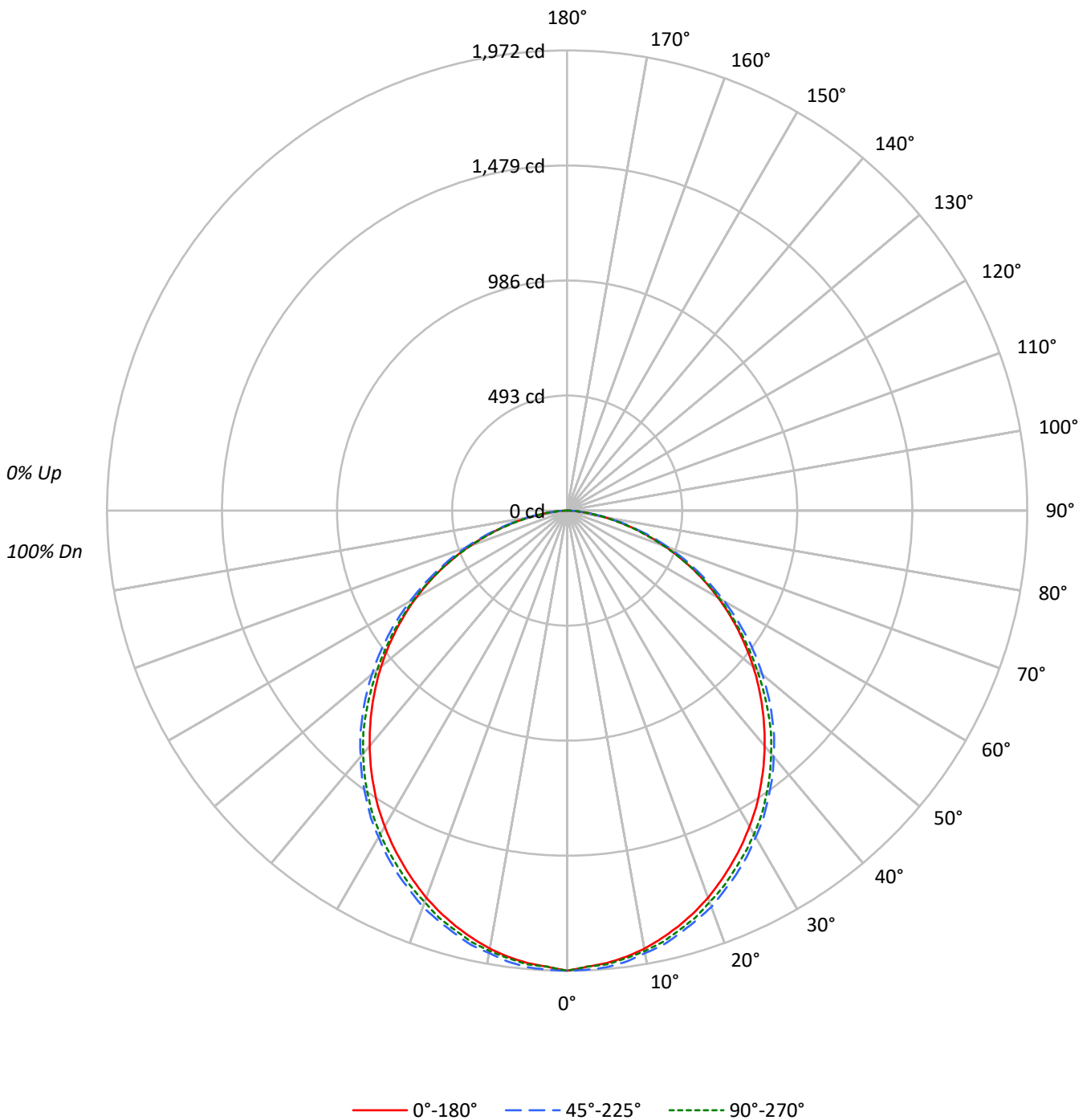
Lumens per Lamp: N/A
Luminaire Lumens: 5183.9 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	5306	5306	5306
5°	5257	5306	5274
10°	5209	5261	5236
15°	5137	5220	5183
20°	5056	5176	5113
25°	4957	5101	5043
30°	4857	5022	4976
35°	4748	4936	4890
40°	4624	4837	4776
45°	4494	4721	4632
50°	4360	4570	4451
55°	4201	4398	4263
60°	4022	4189	4060
65°	3791	3936	3794
70°	3488	3629	3449
75°	3071	3211	3025
80°	2497	2603	2467
85°	1738	1853	1806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.7	3.6
10°-20°	526.2	10.2
20°-30°	784.9	15.1
30°-40°	930.1	17.9
40°-50°	941.1	18.2
50°-60°	821.9	15.9
60°-70°	600.6	11.6
70°-80°	319.6	6.2
80°-90°	73.9	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°	1496.8	28.9
0°-40°	2426.9	46.8
0°-60°	4189.8	80.8
0°-90°	5183.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5183.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1972	1972	1972	1972	1972	
5°	1946	1950	1964	1969	1952	185
15°	1844	1856	1874	1885	1860	520
25°	1670	1690	1718	1724	1698	769
35°	1445	1468	1503	1513	1489	904
45°	1181	1202	1241	1242	1217	911
55°	896	914	937	924	909	800
65°	595	608	618	606	596	589
75°	295	302	309	298	291	314
85°	56	57	60	61	58	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1971.8	1971.8	1971.8	1971.8	1971.8
2.5°	1956.4	1962.7	1969.3	1972.2	1956.2
5°	1946.1	1949.8	1964.4	1968.9	1952.3
7.5°	1929.2	1934.8	1949.0	1951.0	1935.0
10°	1906.2	1916.1	1925.5	1935.8	1916.3
12.5°	1876.9	1890.2	1906.2	1908.1	1893.3
15°	1843.8	1856.1	1873.6	1884.9	1860.4
17.5°	1806.8	1818.7	1841.3	1843.4	1828.6
20°	1765.5	1780.3	1807.4	1812.1	1785.6
22.5°	1718.7	1738.6	1761.2	1765.7	1746.2
25°	1669.6	1690.1	1718.1	1724.4	1698.3
27.5°	1618.2	1637.9	1669.4	1673.9	1651.9
30°	1563.2	1581.6	1616.2	1623.8	1601.4
32.5°	1507.3	1525.8	1564.0	1570.3	1548.6
35°	1445.2	1467.8	1502.6	1513.0	1488.6
37.5°	1382.0	1403.9	1443.4	1452.8	1426.5
40°	1316.4	1338.2	1377.0	1384.8	1359.6
42.5°	1249.5	1271.2	1312.7	1314.0	1293.0
45°	1181.0	1202.0	1240.6	1241.7	1217.2
47.5°	1111.6	1132.8	1167.3	1163.4	1140.4
50°	1041.4	1061.5	1091.7	1083.9	1063.1
52.5°	968.6	988.1	1016.7	1004.0	984.4
55°	895.5	913.6	937.4	923.8	908.6
57.5°	821.7	840.0	858.3	844.5	831.4
60°	747.4	763.4	778.4	764.4	754.4
62.5°	671.8	685.5	698.5	685.1	675.7
65°	595.4	607.5	618.2	605.8	595.8
67.5°	519.3	529.6	539.5	526.7	516.3
70°	443.3	452.2	461.2	448.1	438.4
72.5°	368.3	376.2	384.2	371.4	363.0
75°	295.4	302.2	308.8	297.5	290.9
77.5°	225.8	231.5	236.0	228.9	222.5
80°	161.1	165.4	168.0	165.2	159.2
82.5°	103.5	106.6	108.1	107.9	104.0
85°	56.3	57.3	60.0	60.6	58.5
87.5°	21.8	23.2	23.8	25.7	23.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)