

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: P489161

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4LO-35-120-EDD**

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: P489161
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-LD4-4LO-35-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

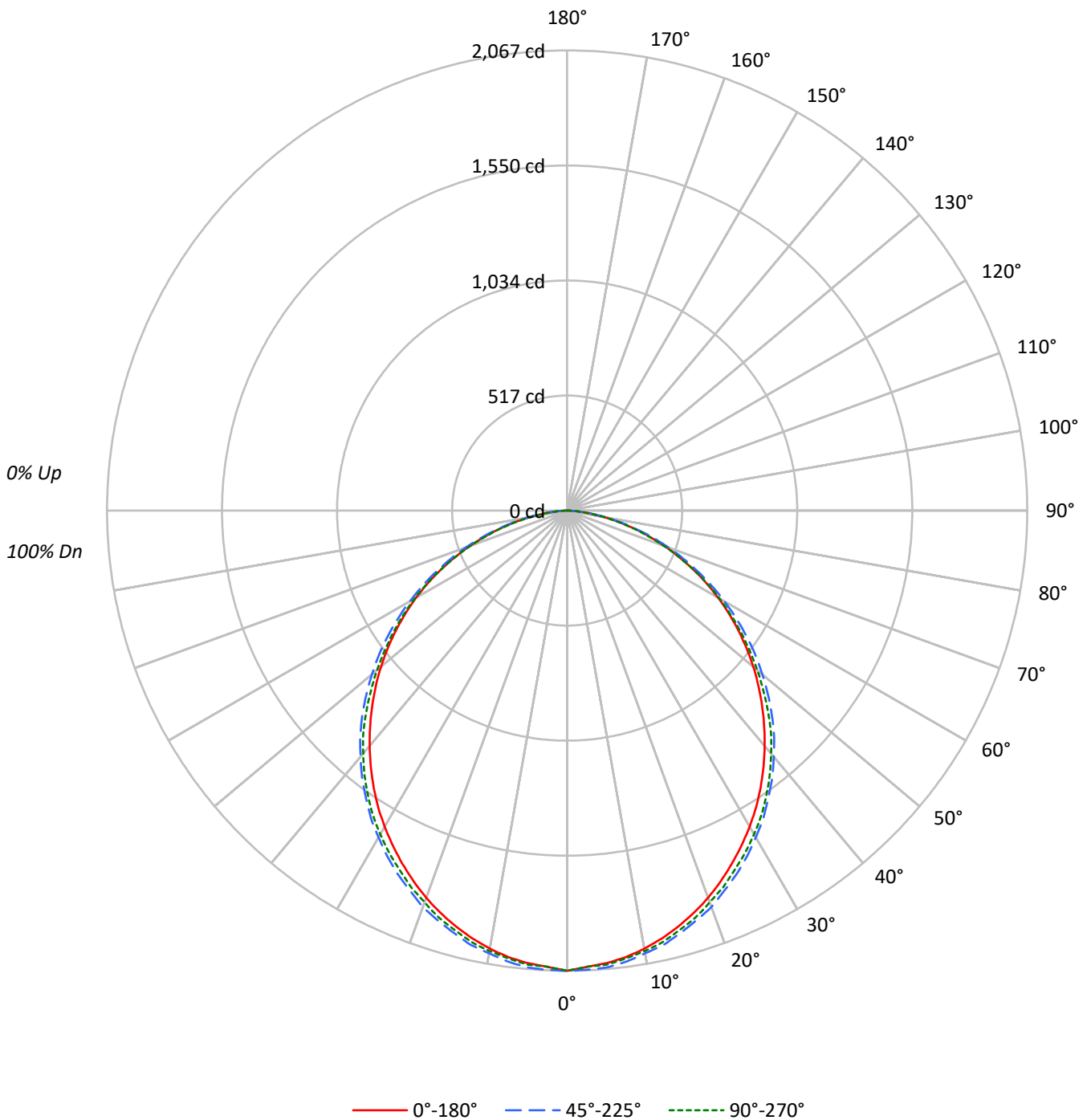
Lumens per Lamp: N/A
Luminaire Lumens: 5435.2 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5563	5563	5563
5°	5512	5564	5529
10°	5461	5517	5490
15°	5386	5473	5434
20°	5301	5427	5361
25°	5198	5348	5287
30°	5093	5265	5217
35°	4978	5175	5127
40°	4848	5072	5008
45°	4712	4950	4857
50°	4571	4792	4667
55°	4405	4611	4470
60°	4217	4392	4257
65°	3975	4127	3977
70°	3657	3805	3617
75°	3220	3366	3171
80°	2617	2731	2586
85°	1822	1942	1896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	3.6
10°-20°	551.7	10.2
20°-30°	822.9	15.1
30°-40°	975.2	17.9
40°-50°	986.7	18.2
50°-60°	861.7	15.9
60°-70°	629.7	11.6
70°-80°	335.1	6.2
80°-90°	77.4	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°	1569.4	28.9
0°-40°	2544.5	46.8
0°-60°	4393.0	80.8
0°-90°	5435.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5435.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2067	2067	2067	2067	2067	
5°	2040	2044	2060	2064	2047	193
15°	1933	1946	1964	1976	1951	545
25°	1750	1772	1801	1808	1781	806
35°	1515	1539	1575	1586	1561	948
45°	1238	1260	1301	1302	1276	955
55°	939	958	983	969	953	839
65°	624	637	648	635	625	618
75°	310	317	324	312	305	329
85°	59	60	63	64	61	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2067.4	2067.4	2067.4	2067.4	2067.4
2.5°	2051.2	2057.9	2064.8	2067.8	2051.0
5°	2040.4	2044.3	2059.6	2064.3	2046.9
7.5°	2022.8	2028.6	2043.4	2045.6	2028.8
10°	1998.6	2009.0	2018.9	2029.7	2009.2
12.5°	1967.8	1981.8	1998.6	2000.6	1985.1
15°	1933.2	1946.1	1964.4	1976.2	1950.6
17.5°	1894.4	1906.9	1930.6	1932.7	1917.2
20°	1851.1	1866.6	1895.0	1900.0	1872.2
22.5°	1802.0	1822.9	1846.6	1851.3	1830.9
25°	1750.5	1772.1	1801.3	1808.0	1780.7
27.5°	1696.7	1717.3	1750.3	1755.0	1732.0
30°	1638.9	1658.3	1694.5	1702.5	1679.0
32.5°	1580.3	1599.7	1639.8	1646.5	1623.6
35°	1515.3	1539.0	1575.4	1586.4	1560.7
37.5°	1449.0	1472.0	1513.4	1523.3	1495.7
40°	1380.2	1403.1	1443.8	1452.0	1425.5
42.5°	1310.0	1332.9	1376.4	1377.7	1355.7
45°	1238.3	1260.3	1300.8	1301.8	1276.2
47.5°	1165.5	1187.7	1223.9	1219.8	1195.7
50°	1091.8	1112.9	1144.6	1136.4	1114.7
52.5°	1015.6	1036.0	1066.0	1052.6	1032.2
55°	938.9	957.9	982.8	968.6	952.7
57.5°	861.6	880.7	899.9	885.5	871.7
60°	783.6	800.4	816.1	801.5	790.9
62.5°	704.3	718.8	732.3	718.3	708.4
65°	624.2	636.9	648.1	635.2	624.6
67.5°	544.5	555.3	565.6	552.3	541.3
70°	464.8	474.1	483.6	469.8	459.7
72.5°	386.2	394.4	402.8	389.4	380.6
75°	309.7	316.8	323.7	311.9	305.0
77.5°	236.7	242.7	247.5	239.9	233.3
80°	168.9	173.4	176.2	173.2	166.9
82.5°	108.6	111.8	113.3	113.1	109.0
85°	59.0	60.1	62.9	63.5	61.4
87.5°	22.8	24.3	25.0	26.9	24.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)