

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: P489629

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2LO-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: P489629
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-24-4-INS-A19156-LD4-2LO-35-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

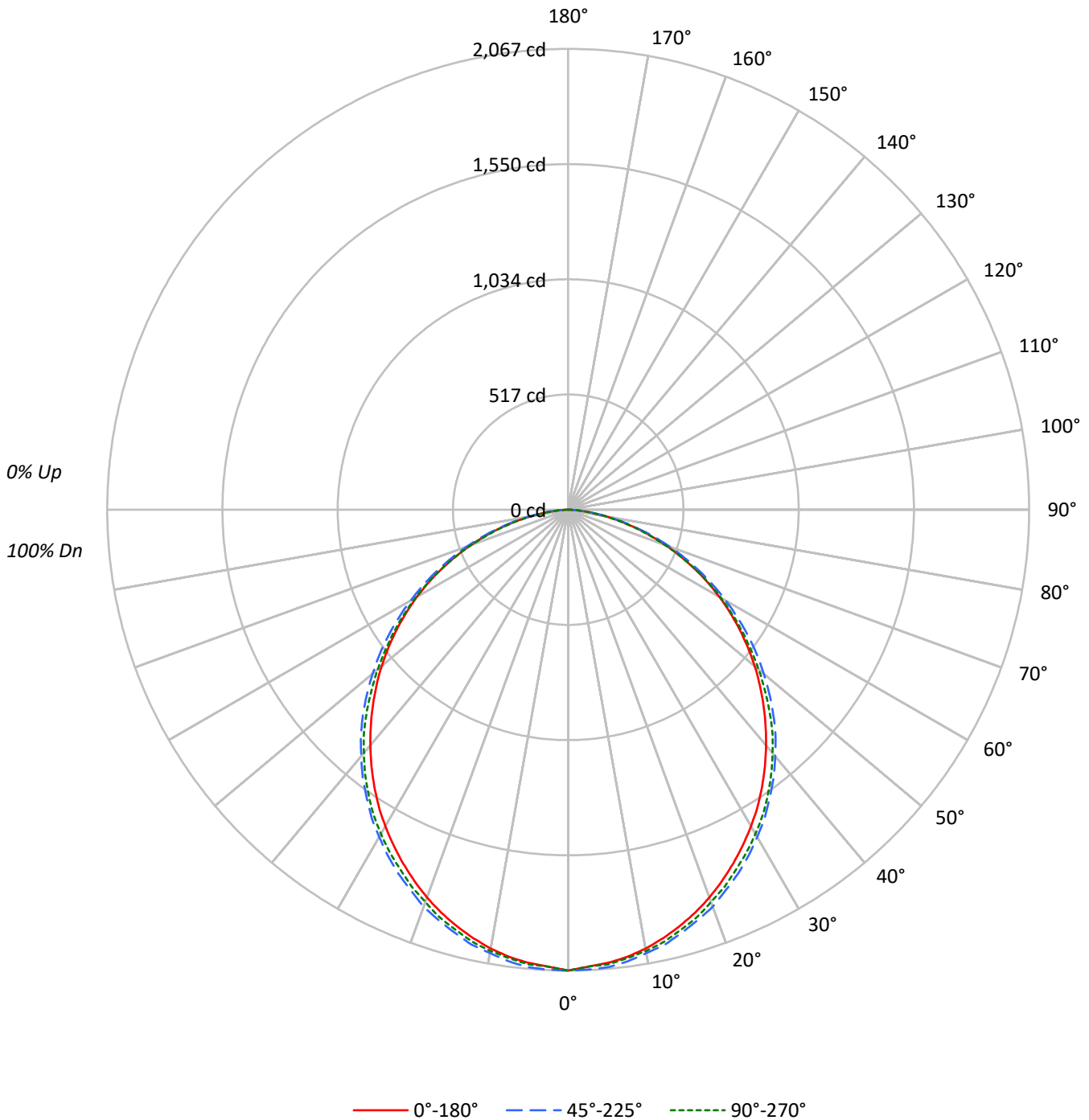
Lumens per Lamp: N/A
Luminaire Lumens: 5435.4 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2782	2782	2782
5°	2756	2782	2765
10°	2731	2758	2745
15°	2693	2736	2717
20°	2651	2713	2681
25°	2599	2674	2644
30°	2546	2633	2609
35°	2489	2588	2564
40°	2424	2536	2504
45°	2356	2475	2429
50°	2286	2396	2333
55°	2202	2306	2235
60°	2109	2196	2129
65°	1987	2063	1989
70°	1828	1902	1808
75°	1610	1683	1586
80°	1309	1365	1293
85°	911	971	948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	3.6
10°-20°	551.8	10.2
20°-30°	822.9	15.1
30°-40°	975.2	17.9
40°-50°	986.7	18.2
50°-60°	861.8	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°	2544.6	46.8
0°-60°	4393.1	80.8
0°-90°	5435.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5435.4	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°	1751	1772	1801	1808	1781	807
35°	1515	1539	1576	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°	2051.3	2058.0	2064.8	2067.9	2051.1
5°	2040.5	2044.4	2059.7	2064.4	2047.0
7.5°	2022.8	2028.7	2043.5	2045.7	2028.9
10°	1998.7	2009.1	2019.0	2029.7	2009.3
12.5°	1967.9	1981.9	1998.7	2000.7	1985.1
15°	1933.2	1946.2	1964.5	1976.3	1950.7
17.5°	1894.5	1907.0	1930.7	1932.8	1917.3
20°	1851.2	1866.7	1895.1	1900.1	1872.3
22.5°	1802.1	1823.0	1846.6	1851.4	1830.9
25°	1750.6	1772.1	1801.4	1808.1	1780.7
27.5°	1696.7	1717.4	1750.4	1755.1	1732.1
30°	1639.0	1658.4	1694.6	1702.5	1679.1
32.5°	1580.4	1599.8	1639.9	1646.5	1623.7
35°	1515.4	1539.1	1575.5	1586.4	1560.8
37.5°	1449.0	1472.1	1513.4	1523.3	1495.8
40°	1380.3	1403.1	1443.8	1452.0	1425.5
42.5°	1310.1	1332.9	1376.4	1377.7	1355.7
45°	1238.3	1260.3	1300.8	1301.9	1276.3
47.5°	1165.5	1187.7	1223.9	1219.8	1195.7
50°	1091.9	1113.0	1144.6	1136.5	1114.7
52.5°	1015.6	1036.1	1066.0	1052.7	1032.2
55°	938.9	957.9	982.9	968.7	952.7
57.5°	861.6	880.8	900.0	885.5	871.7
60°	783.6	800.4	816.2	801.5	791.0
62.5°	704.4	718.8	732.4	718.4	708.5
65°	624.2	636.9	648.1	635.2	624.7
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	316.9	323.7	311.9	305.0
77.5°	236.7	242.8	247.5	240.0	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)