

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: P489138

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-40-120-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: P489138
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-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

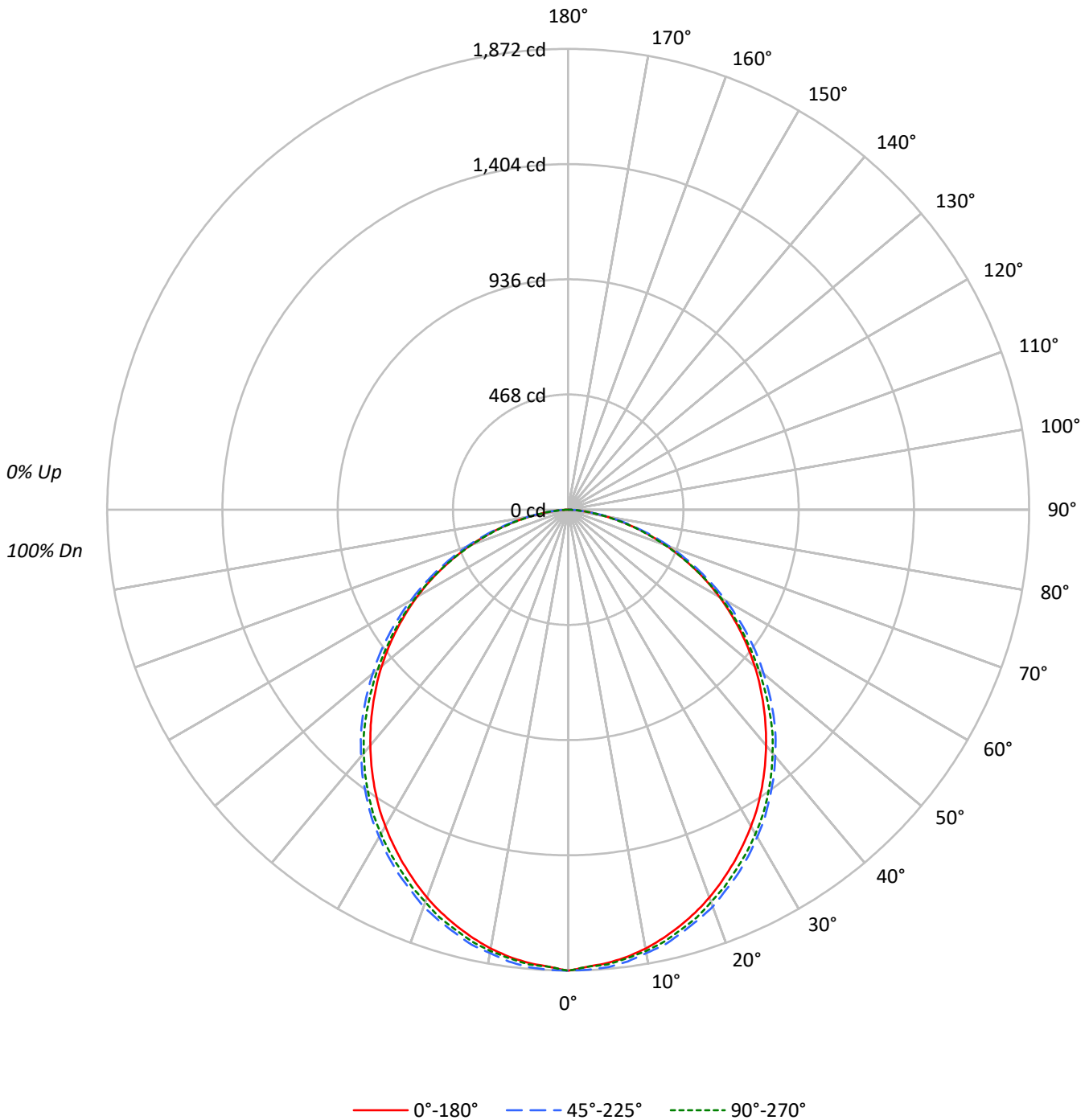
Lumens per Lamp: N/A
Luminaire Lumens: 4923.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5039	5039	5039
5°	4992	5039	5008
10°	4947	4997	4973
15°	4878	4957	4922
20°	4802	4916	4856
25°	4708	4844	4789
30°	4613	4769	4726
35°	4509	4687	4644
40°	4392	4594	4535
45°	4268	4484	4399
50°	4140	4340	4227
55°	3990	4176	4048
60°	3820	3978	3856
65°	3600	3738	3603
70°	3312	3446	3275
75°	2916	3048	2873
80°	2371	2473	2343
85°	1652	1760	1717



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.4	3.6
10°-20°	499.8	10.2
20°-30°	745.4	15.1
30°-40°	883.3	17.9
40°-50°	893.7	18.2
50°-60°	780.5	15.9
60°-70°	570.4	11.6
70°-80°	303.5	6.2
80°-90°	70.1	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°	1421.5	28.9
0°-40°	2304.7	46.8
0°-60°	3979.0	80.8
0°-90°	4923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1872	1872	1872	1872	1872	
5°	1848	1852	1866	1870	1854	175
15°	1751	1763	1779	1790	1767	494
25°	1586	1605	1632	1638	1613	730
35°	1372	1394	1427	1437	1414	858
45°	1122	1142	1178	1179	1156	865
55°	850	868	890	877	863	760
65°	565	577	587	575	566	559
75°	280	287	293	282	276	298
85°	54	54	57	58	56	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1872.5	1872.5	1872.5	1872.5	1872.5
2.5°	1857.9	1863.9	1870.2	1872.9	1857.7
5°	1848.1	1851.7	1865.5	1869.8	1854.0
7.5°	1832.1	1837.4	1850.9	1852.8	1837.6
10°	1810.3	1819.7	1828.6	1838.4	1819.9
12.5°	1782.4	1795.1	1810.3	1812.1	1798.0
15°	1751.0	1762.7	1779.3	1790.0	1766.8
17.5°	1715.9	1727.2	1748.6	1750.6	1736.6
20°	1676.7	1690.7	1716.5	1720.9	1695.8
22.5°	1632.2	1651.1	1672.6	1676.9	1658.3
25°	1585.5	1605.1	1631.6	1637.6	1612.9
27.5°	1536.8	1555.5	1585.4	1589.6	1568.8
30°	1484.5	1502.0	1534.8	1542.0	1520.8
32.5°	1431.4	1449.0	1485.3	1491.3	1470.6
35°	1372.5	1394.0	1426.9	1436.9	1413.7
37.5°	1312.4	1333.3	1370.7	1379.7	1354.7
40°	1250.2	1270.9	1307.7	1315.1	1291.1
42.5°	1186.6	1207.3	1246.7	1247.8	1227.9
45°	1121.6	1141.5	1178.2	1179.2	1155.9
47.5°	1055.7	1075.8	1108.5	1104.8	1083.0
50°	988.9	1008.1	1036.7	1029.3	1009.6
52.5°	919.9	938.4	965.5	953.4	934.9
55°	850.4	867.6	890.2	877.3	862.9
57.5°	780.4	797.7	815.1	802.0	789.6
60°	709.8	725.0	739.2	726.0	716.4
62.5°	638.0	651.0	663.3	650.6	641.7
65°	565.4	576.9	587.0	575.3	565.8
67.5°	493.2	503.0	512.3	500.2	490.3
70°	421.0	429.4	438.0	425.5	416.3
72.5°	349.8	357.2	364.8	352.7	344.7
75°	280.5	287.0	293.2	282.5	276.3
77.5°	214.4	219.9	224.2	217.3	211.3
80°	153.0	157.1	159.6	156.9	151.2
82.5°	98.3	101.3	102.6	102.4	98.7
85°	53.5	54.4	57.0	57.6	55.6
87.5°	20.7	22.0	22.6	24.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)