

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: P489134

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-30-120-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: P489134
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-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

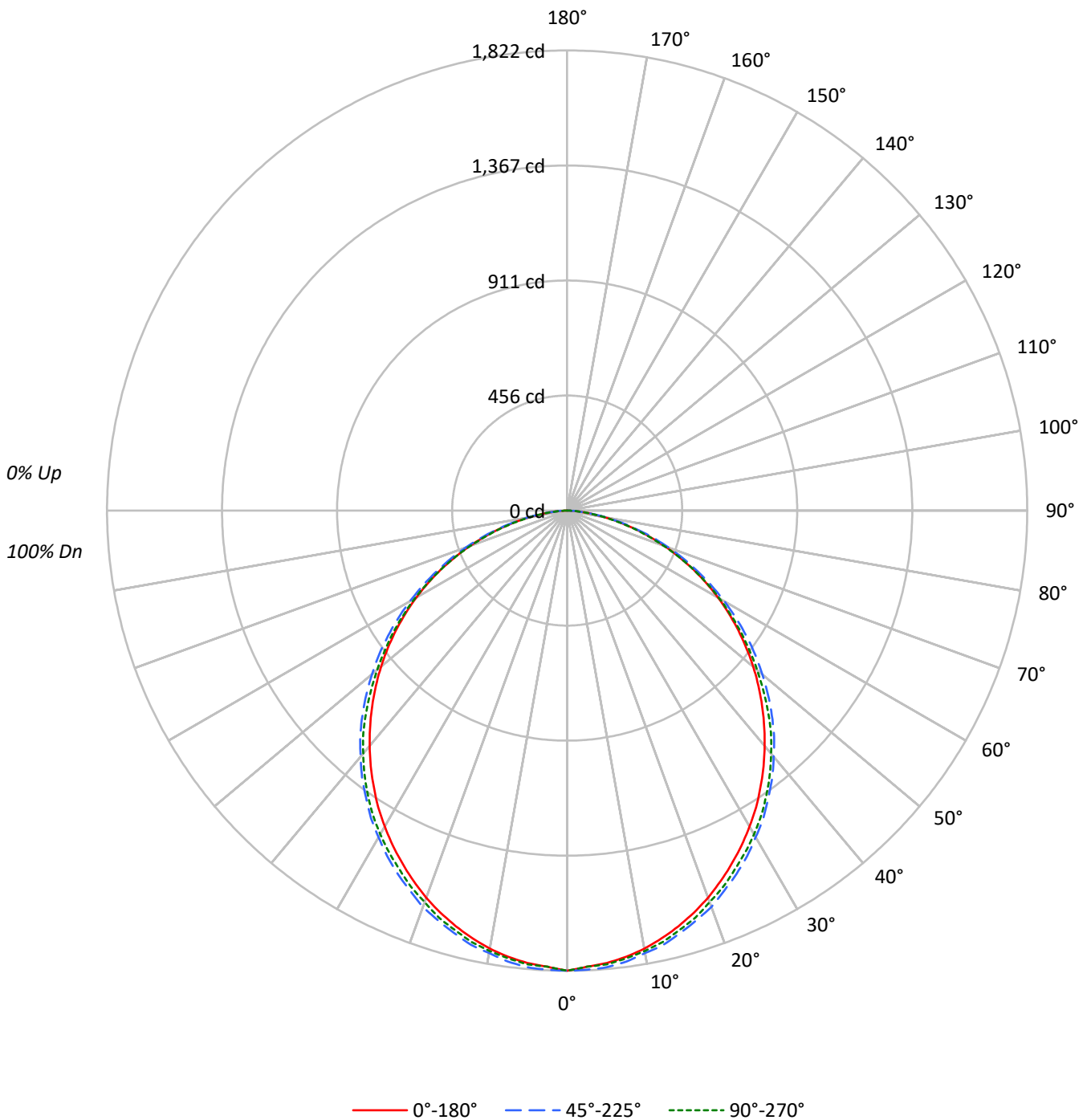
Lumens per Lamp: N/A
Luminaire Lumens: 4790.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4903	4903	4903
5°	4857	4903	4873
10°	4813	4862	4838
15°	4746	4823	4789
20°	4672	4783	4725
25°	4581	4714	4660
30°	4488	4640	4598
35°	4387	4561	4519
40°	4273	4470	4413
45°	4153	4363	4280
50°	4028	4223	4112
55°	3882	4064	3939
60°	3717	3871	3751
65°	3503	3637	3505
70°	3223	3353	3187
75°	2838	2966	2795
80°	2306	2407	2280
85°	1606	1711	1670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.6	3.6
10°-20°	486.3	10.2
20°-30°	725.2	15.1
30°-40°	859.4	17.9
40°-50°	869.6	18.2
50°-60°	759.4	15.9
60°-70°	555.0	11.6
70°-80°	295.3	6.2
80°-90°	68.2	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°	1383.1	28.9
0°-40°	2242.5	46.8
0°-60°	3871.5	80.8
0°-90°	4790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1822	1822	1822	1822	1822	
5°	1798	1802	1815	1819	1804	171
15°	1704	1715	1731	1742	1719	480
25°	1543	1562	1588	1593	1569	711
35°	1335	1356	1388	1398	1376	835
45°	1091	1111	1146	1147	1125	842
55°	827	844	866	854	840	740
65°	550	561	571	560	550	544
75°	273	279	285	275	269	290
85°	52	53	55	56	54	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1821.9	1821.9	1821.9	1821.9	1821.9
2.5°	1807.7	1813.6	1819.7	1822.3	1807.5
5°	1798.2	1801.6	1815.1	1819.3	1803.9
7.5°	1782.7	1787.8	1800.9	1802.8	1788.0
10°	1761.4	1770.5	1779.2	1788.7	1770.7
12.5°	1734.2	1746.6	1761.4	1763.1	1749.4
15°	1703.7	1715.1	1731.2	1741.6	1719.1
17.5°	1669.5	1680.5	1701.4	1703.3	1689.6
20°	1631.4	1645.0	1670.1	1674.5	1650.0
22.5°	1588.1	1606.5	1627.4	1631.6	1613.5
25°	1542.7	1561.7	1587.5	1593.4	1569.3
27.5°	1495.3	1513.5	1542.5	1546.7	1526.4
30°	1444.4	1461.5	1493.4	1500.4	1479.7
32.5°	1392.7	1409.8	1445.1	1451.0	1430.9
35°	1335.4	1356.3	1388.4	1398.1	1375.5
37.5°	1277.0	1297.3	1333.7	1342.4	1318.1
40°	1216.4	1236.5	1272.4	1279.6	1256.3
42.5°	1154.5	1174.6	1213.0	1214.1	1194.8
45°	1091.3	1110.7	1146.4	1147.3	1124.7
47.5°	1027.1	1046.7	1078.6	1075.0	1053.7
50°	962.2	980.8	1008.7	1001.5	982.3
52.5°	895.0	913.1	939.4	927.7	909.6
55°	827.4	844.2	866.2	853.6	839.6
57.5°	759.3	776.2	793.1	780.4	768.2
60°	690.6	705.4	719.2	706.3	697.0
62.5°	620.7	633.4	645.4	633.1	624.3
65°	550.1	561.3	571.2	559.8	550.5
67.5°	479.9	489.4	498.5	486.7	477.0
70°	409.6	417.8	426.2	414.0	405.1
72.5°	340.4	347.6	355.0	343.2	335.4
75°	273.0	279.2	285.3	274.9	268.8
77.5°	208.6	213.9	218.1	211.5	205.6
80°	148.8	152.8	155.3	152.6	147.1
82.5°	95.7	98.5	99.8	99.7	96.1
85°	52.0	53.0	55.4	56.0	54.1
87.5°	20.1	21.5	22.0	23.7	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)