

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: P489075

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-30-120-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: P489075
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-LD4-2HI-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

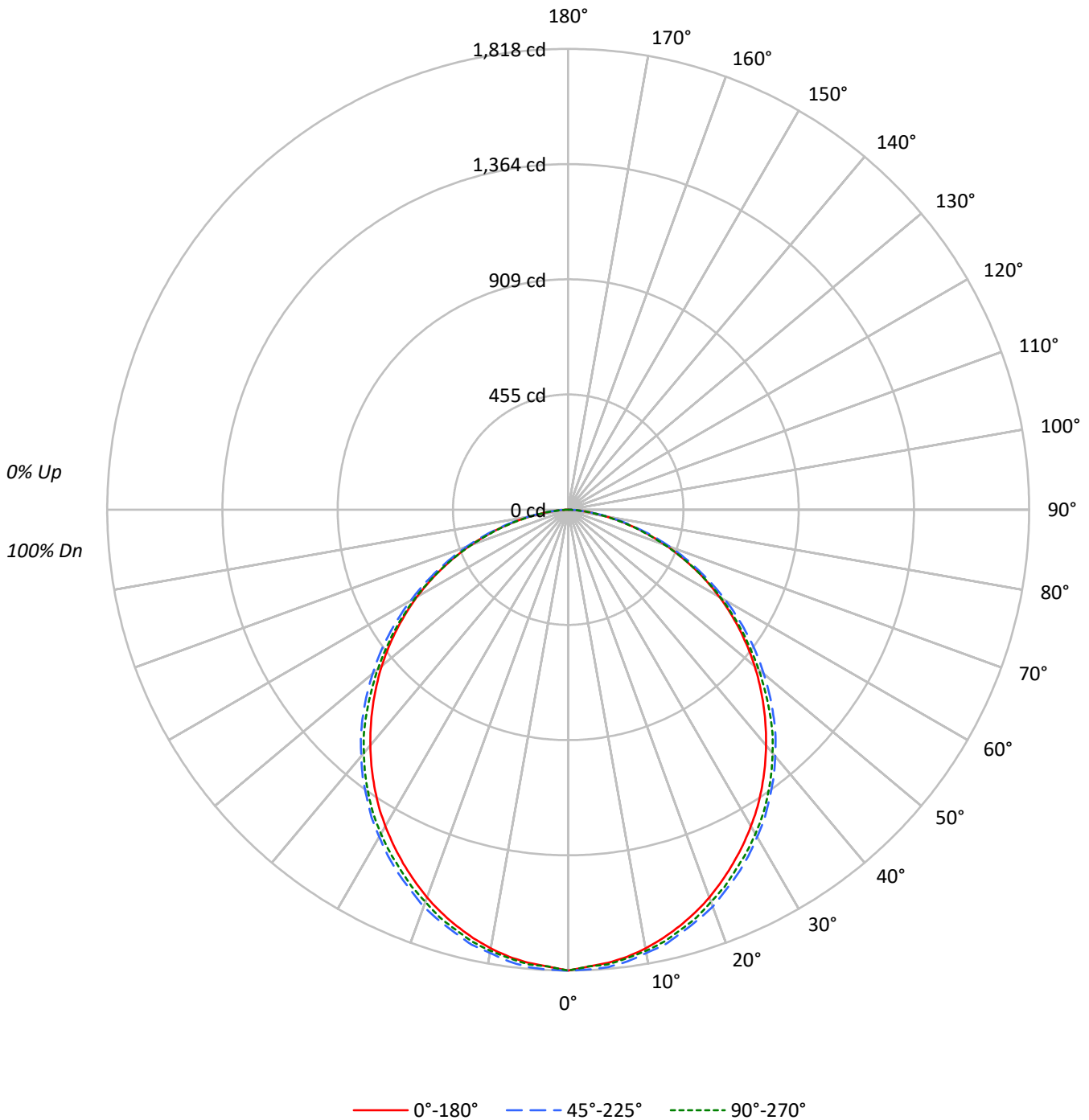
Lumens per Lamp: N/A
Luminaire Lumens: 4780.1 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4893	4893	4893
5°	4847	4893	4863
10°	4803	4852	4828
15°	4737	4813	4779
20°	4662	4773	4715
25°	4571	4704	4650
30°	4479	4631	4588
35°	4378	4551	4509
40°	4264	4461	4404
45°	4145	4354	4271
50°	4020	4214	4104
55°	3874	4055	3931
60°	3709	3863	3744
65°	3496	3629	3498
70°	3216	3346	3181
75°	2832	2960	2789
80°	2301	2402	2275
85°	1602	1707	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.2	3.6
10°-20°	485.2	10.2
20°-30°	723.7	15.1
30°-40°	857.6	17.9
40°-50°	867.8	18.2
50°-60°	757.9	15.9
60°-70°	553.8	11.6
70°-80°	294.7	6.2
80°-90°	68.1	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°	1380.2	28.9
0°-40°	2237.8	46.8
0°-60°	3863.5	80.8
0°-90°	4780.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4780.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1818	1818	1818	1818	1818	
5°	1794	1798	1811	1816	1800	170
15°	1700	1712	1728	1738	1716	479
25°	1540	1558	1584	1590	1566	709
35°	1333	1354	1386	1395	1373	833
45°	1089	1108	1144	1145	1122	840
55°	826	842	864	852	838	738
65°	549	560	570	559	549	543
75°	272	279	285	274	268	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°	1818.2	1818.2	1818.2	1818.2	1818.2
2.5°	1804.0	1809.8	1815.9	1818.6	1803.8
5°	1794.5	1797.9	1811.4	1815.5	1800.2
7.5°	1779.0	1784.1	1797.2	1799.0	1784.3
10°	1757.8	1766.8	1775.6	1785.0	1767.0
12.5°	1730.7	1743.0	1757.8	1759.5	1745.8
15°	1700.2	1711.5	1727.6	1738.0	1715.5
17.5°	1666.1	1677.1	1697.9	1699.8	1686.1
20°	1628.0	1641.6	1666.6	1671.0	1646.6
22.5°	1584.8	1603.2	1624.0	1628.2	1610.2
25°	1539.5	1558.5	1584.2	1590.1	1566.0
27.5°	1492.2	1510.4	1539.3	1543.5	1523.2
30°	1441.4	1458.4	1490.3	1497.3	1476.6
32.5°	1389.9	1406.9	1442.2	1448.0	1427.9
35°	1332.7	1353.5	1385.5	1395.2	1372.6
37.5°	1274.3	1294.6	1331.0	1339.7	1315.4
40°	1213.9	1234.0	1269.8	1277.0	1253.7
42.5°	1152.1	1172.2	1210.5	1211.6	1192.3
45°	1089.1	1108.4	1144.0	1144.9	1122.4
47.5°	1025.0	1044.5	1076.4	1072.8	1051.5
50°	960.2	978.8	1006.6	999.4	980.3
52.5°	893.2	911.2	937.5	925.8	907.8
55°	825.7	842.4	864.4	851.9	837.9
57.5°	757.7	774.6	791.5	778.8	766.6
60°	689.2	703.9	717.8	704.9	695.6
62.5°	619.4	632.1	644.1	631.8	623.0
65°	549.0	560.2	570.0	558.6	549.4
67.5°	478.9	488.4	497.5	485.7	476.0
70°	408.8	416.9	425.3	413.2	404.3
72.5°	339.7	346.9	354.2	342.5	334.7
75°	272.4	278.7	284.7	274.3	268.2
77.5°	208.2	213.5	217.7	211.0	205.2
80°	148.5	152.5	155.0	152.3	146.8
82.5°	95.5	98.3	99.6	99.5	95.9
85°	51.9	52.9	55.3	55.9	54.0
87.5°	20.1	21.4	22.0	23.7	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)