

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: P489601

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-27-120-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: P489601
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-LD4-1STD-27-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

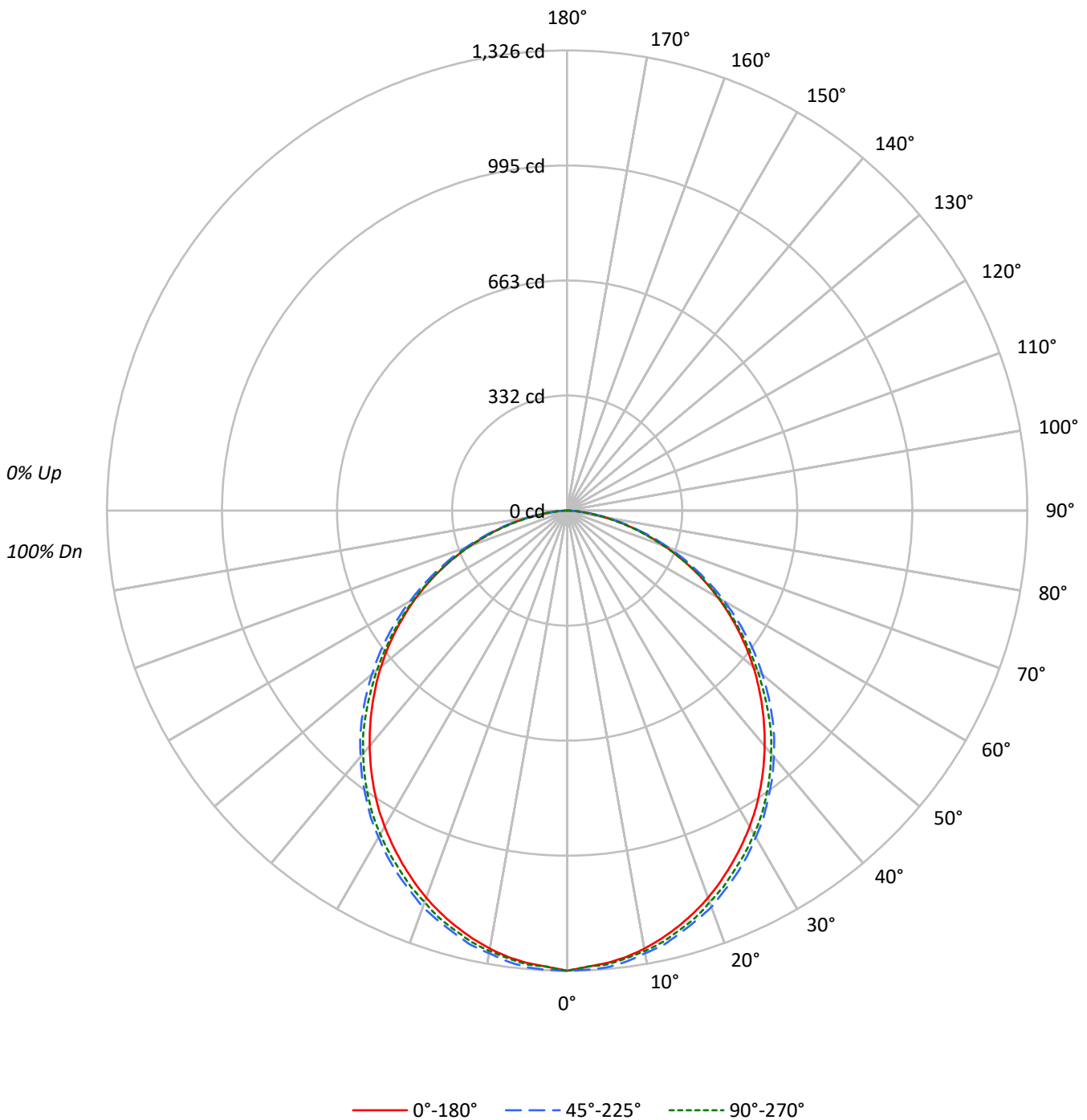
Lumens per Lamp: N/A
Luminaire Lumens: 3486.6 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	1784	1784	1784
5°	1768	1784	1774
10°	1752	1769	1761
15°	1727	1755	1743
20°	1700	1741	1720
25°	1667	1715	1696
30°	1633	1689	1673
35°	1597	1660	1645
40°	1555	1627	1606
45°	1512	1588	1558
50°	1466	1537	1497
55°	1413	1479	1434
60°	1353	1409	1365
65°	1275	1324	1276
70°	1173	1220	1160
75°	1033	1080	1017
80°	839	876	830
85°	585	622	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.9	3.6
10°-20°	353.9	10.2
20°-30°	527.9	15.1
30°-40°	625.5	17.9
40°-50°	633.0	18.2
50°-60°	552.8	15.9
60°-70°	404.0	11.6
70°-80°	214.9	6.2
80°-90°	49.7	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°	1006.7	28.9
0°-40°	1632.3	46.8
0°-60°	2818.0	80.8
0°-90°	3486.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3486.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1309	1311	1321	1324	1313	124
15°	1240	1248	1260	1268	1251	350
25°	1123	1137	1156	1160	1142	517
35°	972	987	1011	1018	1001	608
45°	794	808	834	835	819	613
55°	602	614	630	621	611	538
65°	400	409	416	408	401	396
75°	199	203	208	200	196	211
85°	38	39	40	41	39	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1326.2	1326.2	1326.2	1326.2	1326.2
2.5°	1315.8	1320.1	1324.5	1326.5	1315.7
5°	1308.9	1311.4	1321.2	1324.2	1313.1
7.5°	1297.6	1301.3	1310.8	1312.2	1301.4
10°	1282.1	1288.7	1295.1	1302.0	1288.9
12.5°	1262.3	1271.3	1282.1	1283.3	1273.4
15°	1240.1	1248.4	1260.1	1267.7	1251.3
17.5°	1215.2	1223.2	1238.4	1239.8	1229.9
20°	1187.5	1197.4	1215.6	1218.8	1201.0
22.5°	1156.0	1169.4	1184.6	1187.6	1174.5
25°	1122.9	1136.7	1155.5	1159.8	1142.3
27.5°	1088.4	1101.6	1122.8	1125.8	1111.0
30°	1051.4	1063.8	1087.0	1092.1	1077.1
32.5°	1013.8	1026.2	1051.9	1056.2	1041.5
35°	972.0	987.2	1010.6	1017.6	1001.2
37.5°	929.5	944.3	970.8	977.2	959.5
40°	885.4	900.1	926.2	931.4	914.4
42.5°	840.4	855.0	882.9	883.8	869.7
45°	794.4	808.4	834.4	835.1	818.7
47.5°	747.7	761.9	785.1	782.5	767.0
50°	700.4	713.9	734.2	729.0	715.0
52.5°	651.5	664.6	683.8	675.2	662.1
55°	602.3	614.5	630.5	621.4	611.1
57.5°	552.7	565.0	577.3	568.0	559.2
60°	502.7	513.4	523.5	514.1	507.4
62.5°	451.8	461.1	469.8	460.8	454.4
65°	400.4	408.6	415.8	407.5	400.7
67.5°	349.3	356.2	362.8	354.3	347.2
70°	298.2	304.1	310.2	301.4	294.9
72.5°	247.7	253.0	258.4	249.8	244.2
75°	198.7	203.3	207.7	200.1	195.7
77.5°	151.9	155.7	158.8	153.9	149.6
80°	108.3	111.2	113.0	111.1	107.1
82.5°	69.6	71.7	72.7	72.5	69.9
85°	37.9	38.6	40.3	40.8	39.4
87.5°	14.6	15.6	16.0	17.3	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)