

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: P489097

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-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: P489097
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-LD4-2STD-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

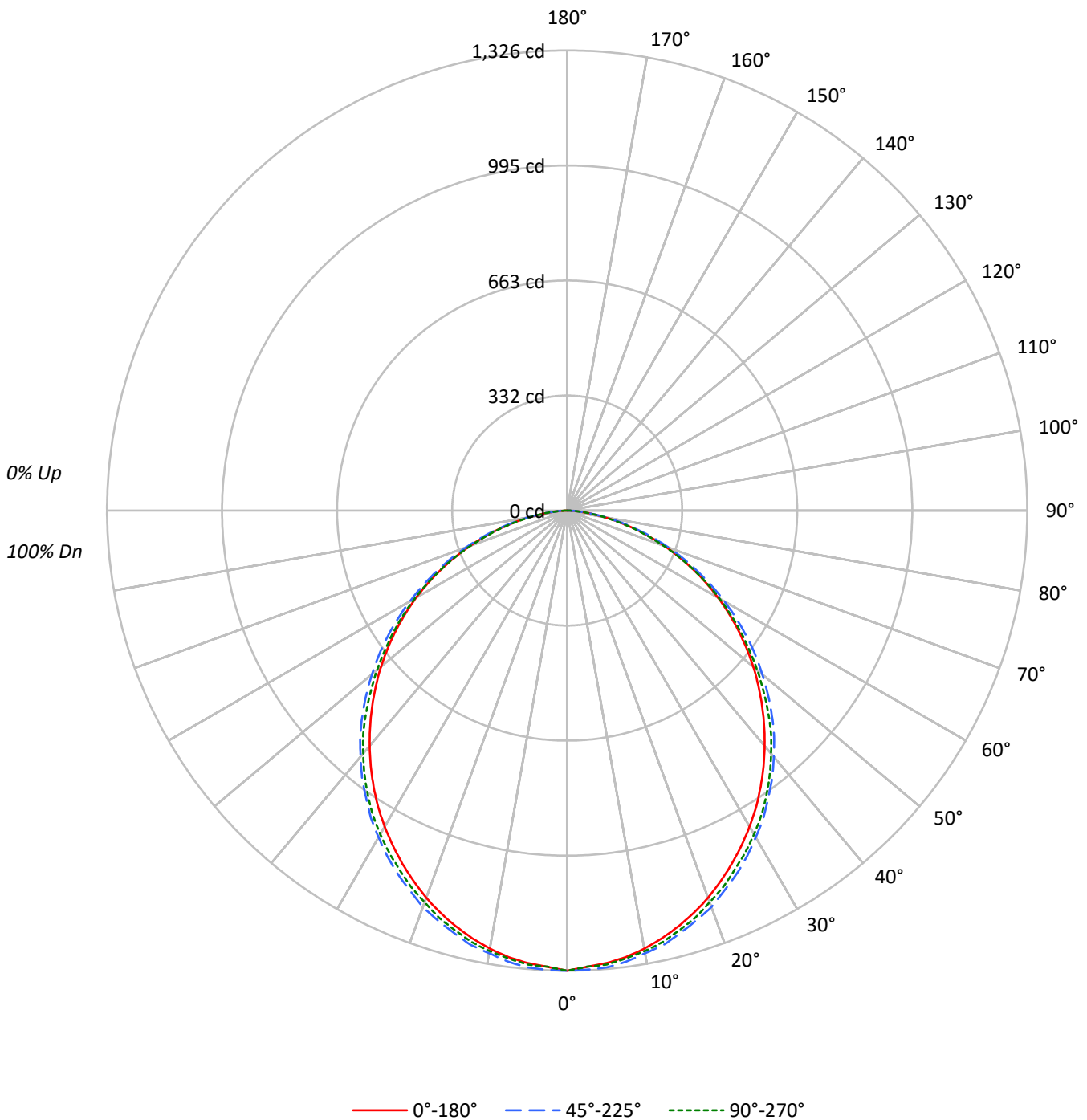
Lumens per Lamp: N/A
Luminaire Lumens: 3486.5 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3569	3569	3569
5°	3536	3569	3547
10°	3503	3539	3522
15°	3455	3511	3486
20°	3400	3481	3439
25°	3334	3431	3391
30°	3267	3378	3347
35°	3193	3320	3289
40°	3110	3253	3212
45°	3023	3175	3115
50°	2932	3074	2993
55°	2826	2958	2867
60°	2706	2817	2731
65°	2550	2647	2551
70°	2346	2441	2320
75°	2066	2159	2034
80°	1678	1751	1660
85°	1170	1244	1216



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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°	632.9	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°	1632.2	46.8
0°-60°	2817.9	80.8
0°-90°	3486.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3486.5	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	38	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°	1326.1	1326.1	1326.1	1326.1	1326.1
2.5°	1315.8	1320.1	1324.5	1326.4	1315.6
5°	1308.9	1311.4	1321.2	1324.2	1313.0
7.5°	1297.5	1301.3	1310.8	1312.2	1301.4
10°	1282.1	1288.7	1295.1	1302.0	1288.8
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	1229.8
20°	1187.4	1197.4	1215.6	1218.8	1201.0
22.5°	1155.9	1169.3	1184.5	1187.6	1174.4
25°	1122.9	1136.7	1155.5	1159.8	1142.2
27.5°	1088.4	1101.6	1122.8	1125.8	1111.0
30°	1051.3	1063.8	1087.0	1092.1	1077.0
32.5°	1013.7	1026.2	1051.9	1056.2	1041.5
35°	972.0	987.2	1010.6	1017.6	1001.2
37.5°	929.5	944.2	970.8	977.1	959.4
40°	885.4	900.0	926.1	931.4	914.4
42.5°	840.3	855.0	882.9	883.7	869.6
45°	794.3	808.4	834.4	835.1	818.6
47.5°	747.6	761.9	785.1	782.4	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	614.4	630.5	621.3	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	415.7	407.5	400.7
67.5°	349.3	356.2	362.8	354.3	347.2
70°	298.2	304.1	310.2	301.3	294.9
72.5°	247.7	253.0	258.4	249.8	244.1
75°	198.7	203.2	207.7	200.1	195.6
77.5°	151.8	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	38.5	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)