

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: P489121

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-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: P489121
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-LD4-3LO-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

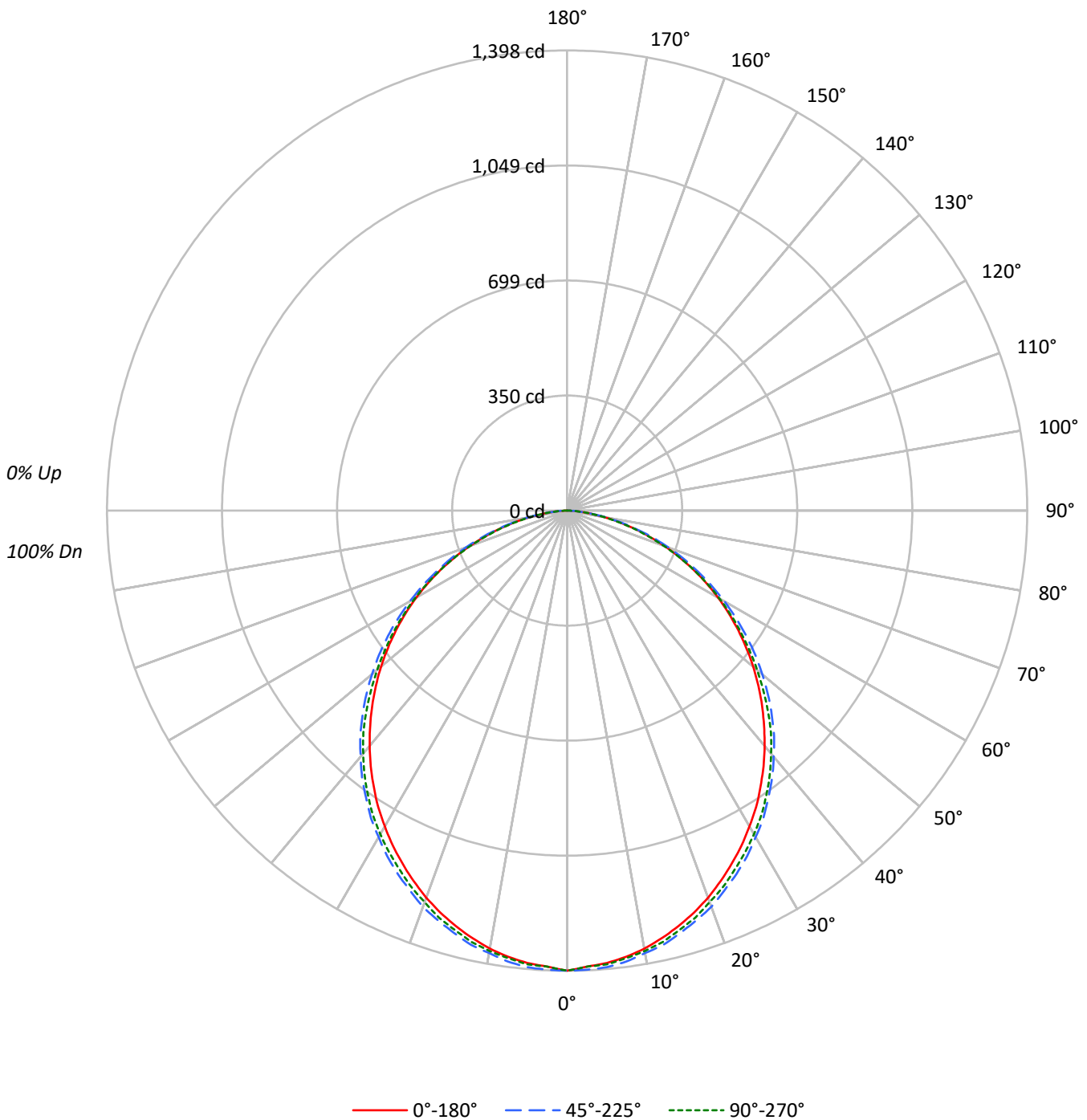
Lumens per Lamp: N/A
Luminaire Lumens: 3674.9 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	3761	3761	3761
5°	3727	3762	3739
10°	3692	3730	3712
15°	3641	3700	3674
20°	3584	3669	3625
25°	3514	3616	3575
30°	3443	3560	3527
35°	3366	3499	3467
40°	3278	3429	3386
45°	3186	3347	3284
50°	3090	3240	3155
55°	2978	3118	3022
60°	2851	2970	2878
65°	2687	2790	2689
70°	2473	2572	2445
75°	2177	2276	2144
80°	1770	1846	1750
85°	1232	1312	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.6	3.6
10°-20°	373.1	10.2
20°-30°	556.4	15.1
30°-40°	659.3	17.9
40°-50°	667.1	18.2
50°-60°	582.6	15.9
60°-70°	425.8	11.6
70°-80°	226.5	6.2
80°-90°	52.4	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°	1061.1	28.9
0°-40°	1720.4	46.8
0°-60°	2970.2	80.8
0°-90°	3674.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3674.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1380	1382	1393	1396	1384	131
15°	1307	1316	1328	1336	1319	368
25°	1184	1198	1218	1222	1204	545
35°	1024	1041	1065	1073	1055	641
45°	837	852	880	880	863	646
55°	635	648	664	655	644	567
65°	422	431	438	430	422	418
75°	209	214	219	211	206	223
85°	40	41	42	43	42	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1397.8	1397.8	1397.8	1397.8	1397.8
2.5°	1386.9	1391.4	1396.1	1398.1	1386.7
5°	1379.6	1382.2	1392.6	1395.8	1384.0
7.5°	1367.7	1371.6	1381.6	1383.1	1371.7
10°	1351.3	1358.3	1365.0	1372.3	1358.5
12.5°	1330.5	1340.0	1351.3	1352.7	1342.2
15°	1307.1	1315.8	1328.2	1336.2	1318.9
17.5°	1280.9	1289.3	1305.3	1306.8	1296.3
20°	1251.6	1262.1	1281.3	1284.6	1265.9
22.5°	1218.4	1232.5	1248.5	1251.7	1237.9
25°	1183.6	1198.1	1217.9	1222.5	1204.0
27.5°	1147.2	1161.1	1183.4	1186.6	1171.0
30°	1108.1	1121.2	1145.7	1151.1	1135.2
32.5°	1068.5	1081.6	1108.7	1113.2	1097.8
35°	1024.5	1040.6	1065.2	1072.6	1055.3
37.5°	979.7	995.3	1023.2	1029.9	1011.3
40°	933.2	948.7	976.2	981.7	963.8
42.5°	885.7	901.2	930.6	931.5	916.6
45°	837.3	852.1	879.5	880.2	862.9
47.5°	788.0	803.0	827.5	824.7	808.4
50°	738.2	752.5	773.9	768.4	753.7
52.5°	686.7	700.5	720.7	711.7	697.9
55°	634.8	647.6	664.5	654.9	644.1
57.5°	582.5	595.5	608.5	598.7	589.4
60°	529.8	541.2	551.8	541.9	534.8
62.5°	476.2	486.0	495.2	485.7	479.0
65°	422.0	430.6	438.2	429.5	422.3
67.5°	368.2	375.4	382.4	373.4	366.0
70°	314.3	320.5	326.9	317.6	310.8
72.5°	261.1	266.7	272.3	263.3	257.3
75°	209.4	214.2	218.9	210.9	206.2
77.5°	160.1	164.1	167.3	162.2	157.7
80°	114.2	117.2	119.1	117.1	112.9
82.5°	73.4	75.6	76.6	76.5	73.7
85°	39.9	40.6	42.5	43.0	41.5
87.5°	15.4	16.5	16.9	18.2	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)