

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: P489071

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-20-120-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: P489071
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-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

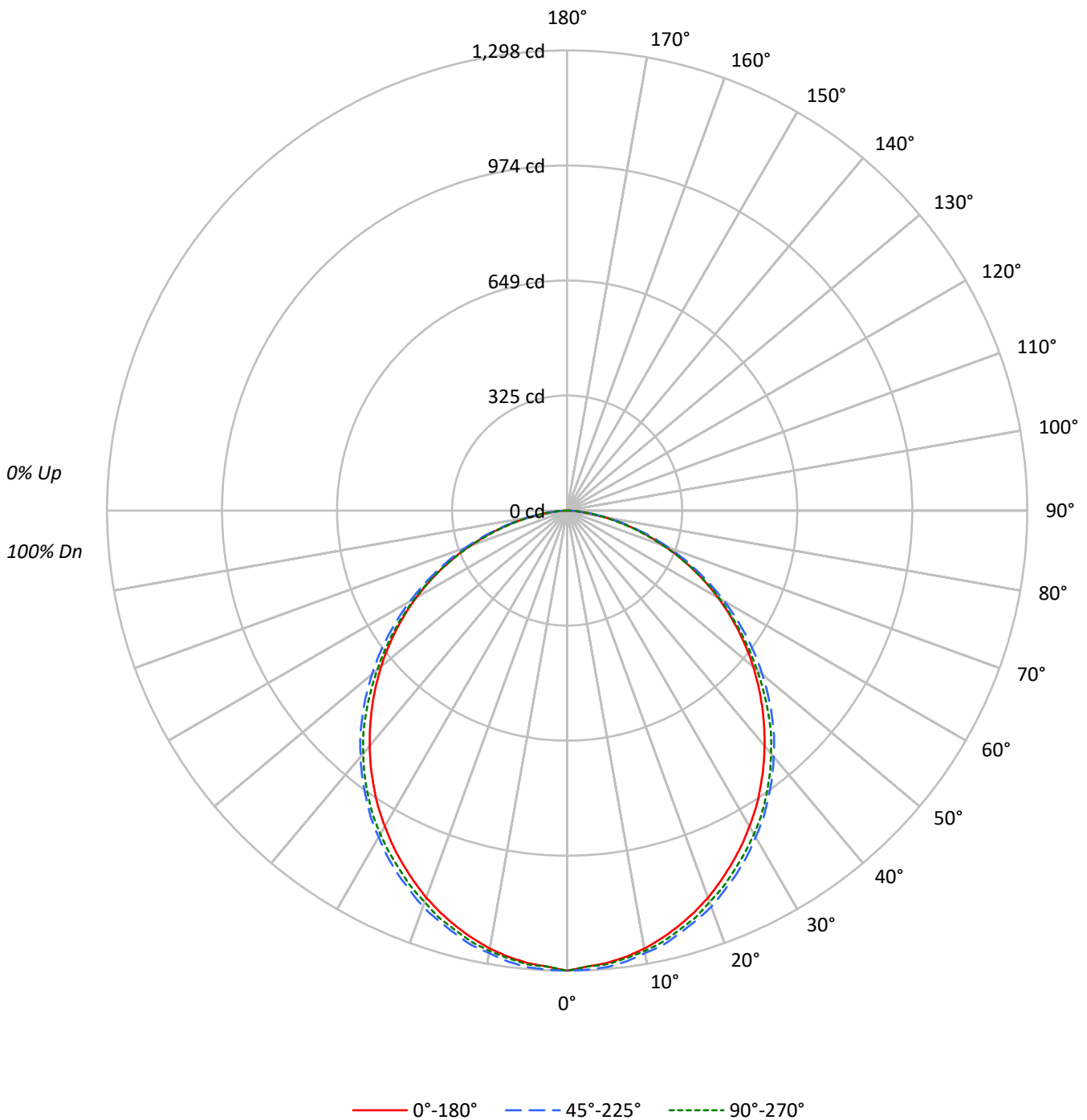
Lumens per Lamp: N/A
Luminaire Lumens: 3411.7 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3492	3492	3492
5°	3460	3492	3471
10°	3428	3463	3446
15°	3381	3435	3411
20°	3327	3406	3365
25°	3263	3357	3319
30°	3197	3305	3275
35°	3125	3249	3218
40°	3044	3184	3143
45°	2958	3107	3049
50°	2869	3008	2929
55°	2765	2894	2806
60°	2647	2757	2672
65°	2495	2590	2497
70°	2296	2388	2270
75°	2021	2113	1990
80°	1643	1714	1624
85°	1142	1220	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.2	3.6
10°-20°	346.3	10.2
20°-30°	516.5	15.1
30°-40°	612.1	17.9
40°-50°	619.4	18.2
50°-60°	540.9	15.9
60°-70°	395.3	11.6
70°-80°	210.3	6.2
80°-90°	48.6	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°	985.1	28.9
0°-40°	1597.2	46.8
0°-60°	2757.5	80.8
0°-90°	3411.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3411.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1281	1283	1293	1296	1285	121
15°	1214	1222	1233	1240	1224	342
25°	1099	1112	1131	1135	1118	506
35°	951	966	989	996	980	595
45°	777	791	816	817	801	600
55°	589	601	617	608	598	527
65°	392	400	407	399	392	388
75°	194	199	203	196	191	207
85°	37	38	40	40	38	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1297.7	1297.7	1297.7	1297.7	1297.7
2.5°	1287.5	1291.7	1296.1	1298.0	1287.4
5°	1280.8	1283.2	1292.8	1295.8	1284.8
7.5°	1269.7	1273.4	1282.7	1284.0	1273.5
10°	1254.6	1261.0	1267.3	1274.0	1261.2
12.5°	1235.2	1244.0	1254.6	1255.8	1246.0
15°	1213.5	1221.6	1233.1	1240.5	1224.4
17.5°	1189.1	1197.0	1211.8	1213.2	1203.5
20°	1161.9	1171.7	1189.5	1192.6	1175.2
22.5°	1131.1	1144.2	1159.1	1162.1	1149.2
25°	1098.8	1112.3	1130.7	1134.9	1117.7
27.5°	1065.0	1078.0	1098.7	1101.6	1087.2
30°	1028.8	1040.9	1063.7	1068.7	1053.9
32.5°	992.0	1004.2	1029.3	1033.5	1019.2
35°	951.2	966.0	988.9	995.8	979.7
37.5°	909.5	924.0	949.9	956.2	938.9
40°	866.4	880.7	906.3	911.4	894.8
42.5°	822.3	836.6	864.0	864.8	851.0
45°	777.3	791.1	816.5	817.2	801.1
47.5°	731.6	745.5	768.2	765.7	750.5
50°	685.3	698.6	718.5	713.3	699.7
52.5°	637.5	650.3	669.1	660.7	647.9
55°	589.4	601.3	616.9	608.0	598.0
57.5°	540.8	552.8	564.9	555.8	547.2
60°	491.9	502.4	512.3	503.1	496.5
62.5°	442.1	451.2	459.7	450.9	444.7
65°	391.8	399.8	406.8	398.7	392.1
67.5°	341.8	348.6	355.0	346.7	339.8
70°	291.8	297.6	303.5	294.9	288.5
72.5°	242.4	247.6	252.8	244.4	238.9
75°	194.4	198.9	203.2	195.8	191.4
77.5°	148.6	152.4	155.3	150.6	146.4
80°	106.0	108.8	110.6	108.7	104.8
82.5°	68.1	70.2	71.1	71.0	68.4
85°	37.0	37.7	39.5	39.9	38.5
87.5°	14.3	15.3	15.7	16.9	15.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)