

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: P489575

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-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: P489575
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-LD4-1HI-20-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

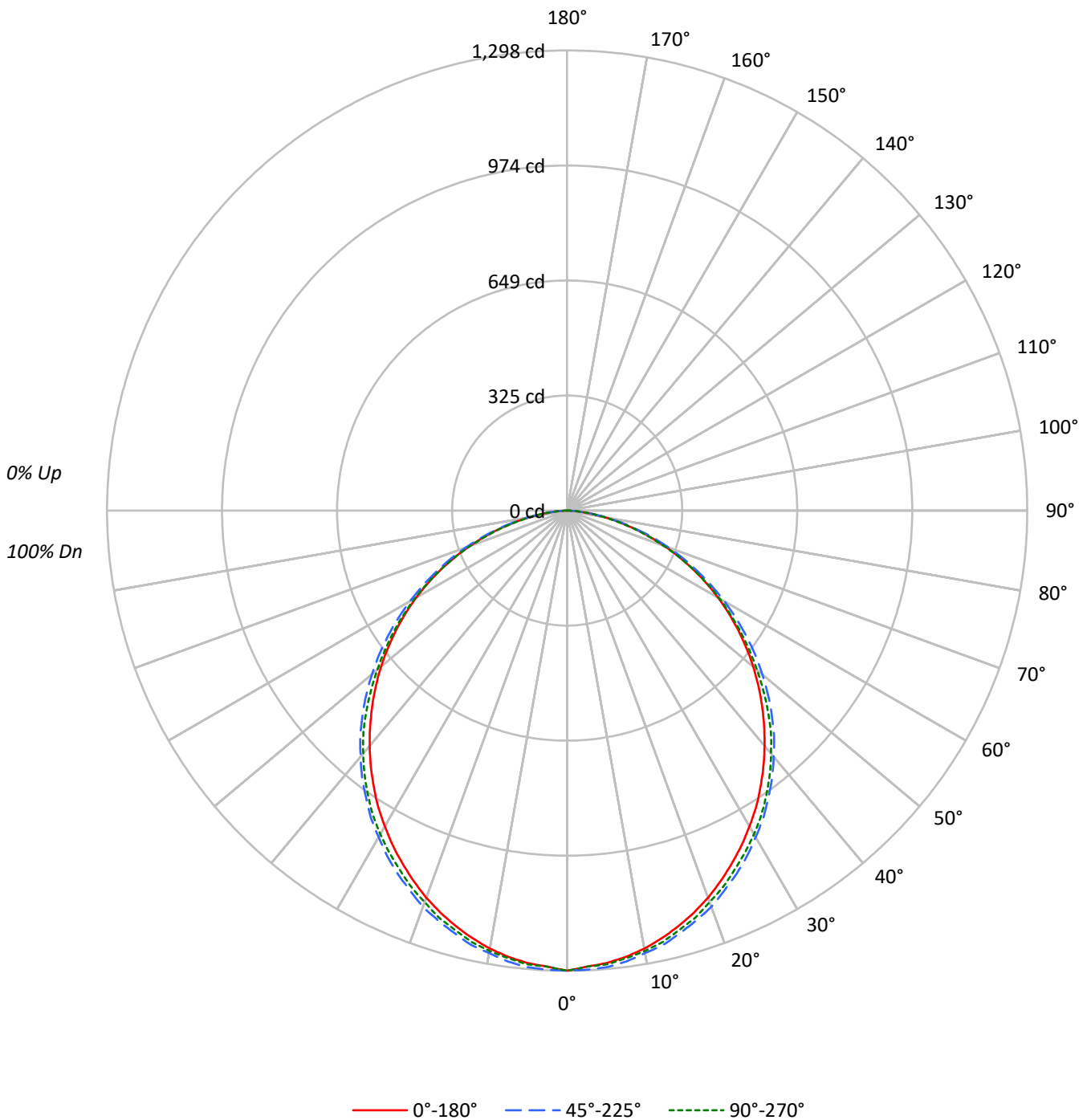
Lumens per Lamp: N/A
Luminaire Lumens: 3411.8 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1746	1746	1746
5°	1730	1746	1735
10°	1714	1731	1723
15°	1690	1718	1706
20°	1664	1703	1683
25°	1631	1679	1659
30°	1598	1653	1637
35°	1562	1624	1609
40°	1522	1592	1572
45°	1479	1554	1524
50°	1435	1504	1465
55°	1383	1447	1403
60°	1324	1379	1336
65°	1247	1295	1248
70°	1148	1194	1135
75°	1011	1056	996
80°	821	857	812
85°	571	610	594



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.2	3.6
10°-20°	346.3	10.2
20°-30°	516.6	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°	2757.6	80.8
0°-90°	3411.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3411.8	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	192	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°	1287.6	1291.8	1296.1	1298.0	1287.5
5°	1280.8	1283.3	1292.9	1295.8	1284.9
7.5°	1269.7	1273.4	1282.7	1284.1	1273.5
10°	1254.6	1261.1	1267.3	1274.1	1261.2
12.5°	1235.3	1244.0	1254.6	1255.8	1246.1
15°	1213.5	1221.6	1233.1	1240.5	1224.4
17.5°	1189.2	1197.0	1211.9	1213.2	1203.5
20°	1162.0	1171.7	1189.6	1192.7	1175.2
22.5°	1131.2	1144.3	1159.1	1162.1	1149.3
25°	1098.8	1112.4	1130.7	1134.9	1117.8
27.5°	1065.0	1078.0	1098.7	1101.7	1087.2
30°	1028.8	1041.0	1063.7	1068.7	1053.9
32.5°	992.0	1004.2	1029.3	1033.5	1019.2
35°	951.2	966.1	988.9	995.8	979.7
37.5°	909.5	924.0	950.0	956.2	938.9
40°	866.4	880.7	906.3	911.4	894.8
42.5°	822.3	836.7	864.0	864.8	851.0
45°	777.3	791.1	816.5	817.2	801.1
47.5°	731.6	745.5	768.3	765.7	750.5
50°	685.4	698.6	718.5	713.4	699.7
52.5°	637.5	650.4	669.1	660.8	647.9
55°	589.4	601.3	617.0	608.0	598.0
57.5°	540.8	552.9	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	355.1	346.7	339.8
70°	291.8	297.6	303.5	294.9	288.5
72.5°	242.4	247.6	252.8	244.5	238.9
75°	194.4	198.9	203.2	195.8	191.5
77.5°	148.6	152.4	155.4	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)