

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: P489101

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-35-120-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: P489101
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-35-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

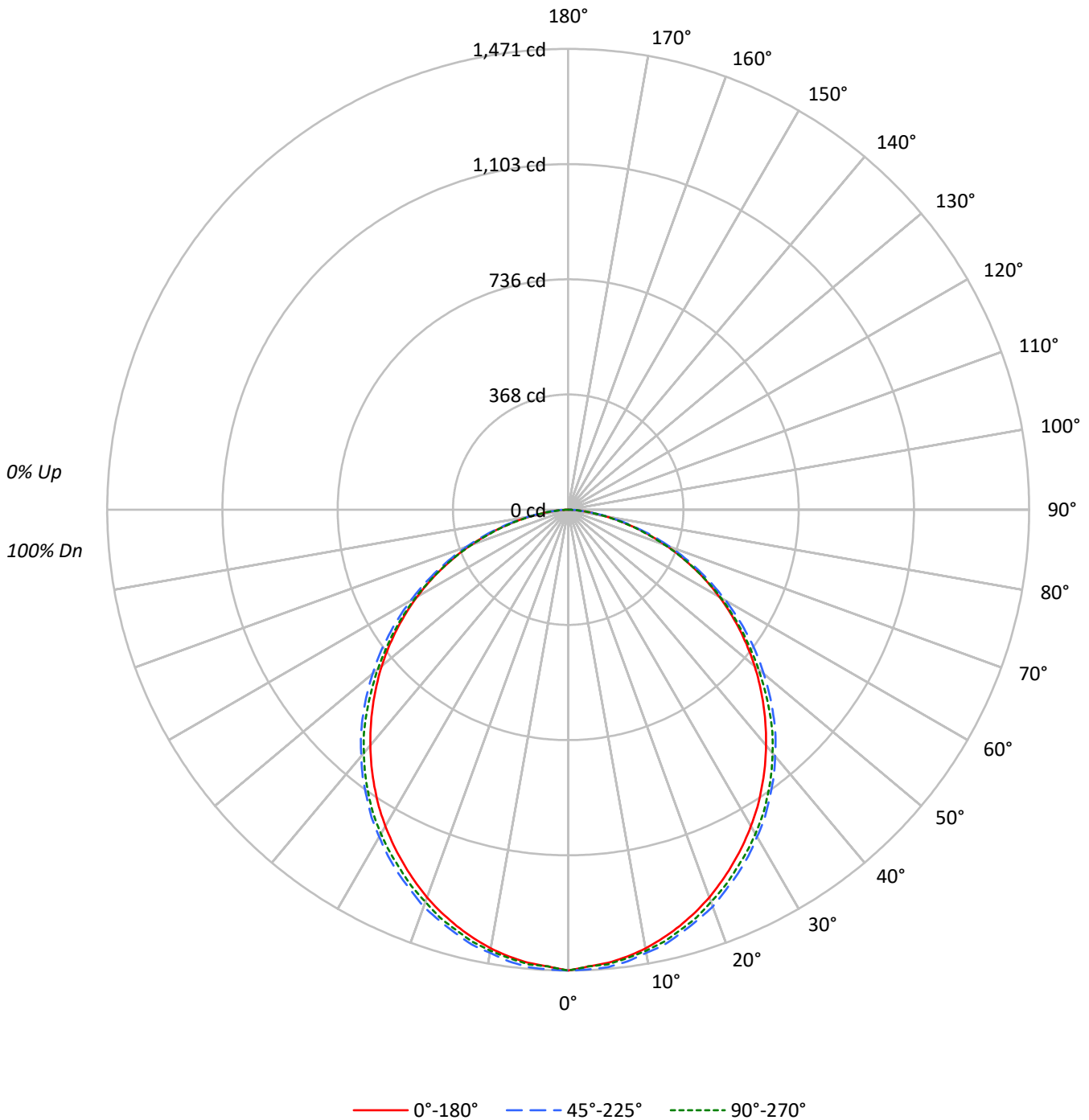
Lumens per Lamp: N/A
Luminaire Lumens: 3867.4 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	3958	3958	3958
5°	3922	3959	3934
10°	3886	3925	3906
15°	3832	3894	3867
20°	3772	3861	3815
25°	3698	3806	3762
30°	3624	3746	3712
35°	3542	3683	3648
40°	3450	3609	3563
45°	3353	3522	3456
50°	3252	3409	3320
55°	3134	3281	3180
60°	3001	3125	3029
65°	2828	2937	2830
70°	2602	2707	2574
75°	2292	2396	2256
80°	1863	1943	1841
85°	1297	1383	1349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.5	3.6
10°-20°	392.6	10.2
20°-30°	585.5	15.1
30°-40°	693.9	17.9
40°-50°	702.1	18.2
50°-60°	613.2	15.9
60°-70°	448.1	11.6
70°-80°	238.4	6.2
80°-90°	55.1	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°	1116.7	28.9
0°-40°	1810.5	46.8
0°-60°	3125.8	80.8
0°-90°	3867.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3867.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1452	1455	1466	1469	1456	138
15°	1376	1385	1398	1406	1388	388
25°	1246	1261	1282	1286	1267	574
35°	1078	1095	1121	1129	1110	674
45°	881	897	926	926	908	680
55°	668	682	699	689	678	597
65°	444	453	461	452	444	440
75°	220	226	230	222	217	234
85°	42	43	45	45	44	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1471.0	1471.0	1471.0	1471.0	1471.0
2.5°	1459.5	1464.3	1469.2	1471.3	1459.4
5°	1451.9	1454.6	1465.5	1468.9	1456.5
7.5°	1439.3	1443.4	1454.0	1455.5	1443.6
10°	1422.1	1429.5	1436.5	1444.2	1429.6
12.5°	1400.2	1410.2	1422.1	1423.5	1412.5
15°	1375.5	1384.7	1397.8	1406.2	1388.0
17.5°	1348.0	1356.8	1373.7	1375.2	1364.2
20°	1317.1	1328.2	1348.4	1351.9	1332.2
22.5°	1282.2	1297.1	1313.9	1317.3	1302.7
25°	1245.6	1260.9	1281.7	1286.5	1267.0
27.5°	1207.3	1222.0	1245.4	1248.8	1232.4
30°	1166.2	1180.0	1205.7	1211.4	1194.7
32.5°	1124.5	1138.3	1166.8	1171.5	1155.3
35°	1078.2	1095.1	1121.0	1128.8	1110.5
37.5°	1031.0	1047.4	1076.8	1083.9	1064.3
40°	982.1	998.4	1027.3	1033.1	1014.3
42.5°	932.1	948.4	979.4	980.3	964.6
45°	881.1	896.7	925.6	926.3	908.1
47.5°	829.3	845.1	870.8	867.9	850.8
50°	776.9	791.9	814.4	808.6	793.1
52.5°	722.6	737.2	758.5	749.0	734.4
55°	668.1	681.6	699.3	689.2	677.9
57.5°	613.1	626.7	640.3	630.1	620.3
60°	557.6	569.5	580.7	570.3	562.8
62.5°	501.2	511.4	521.1	511.1	504.1
65°	444.2	453.2	461.2	452.0	444.5
67.5°	387.4	395.1	402.5	393.0	385.2
70°	330.7	337.3	344.1	334.3	327.1
72.5°	274.8	280.6	286.6	277.1	270.8
75°	220.4	225.5	230.4	221.9	217.0
77.5°	168.4	172.7	176.1	170.7	166.0
80°	120.2	123.4	125.4	123.2	118.8
82.5°	77.2	79.5	80.6	80.5	77.6
85°	42.0	42.8	44.8	45.2	43.7
87.5°	16.2	17.3	17.8	19.2	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)