

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: P489609

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-50-120-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: P489609
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-LD4-1STD-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

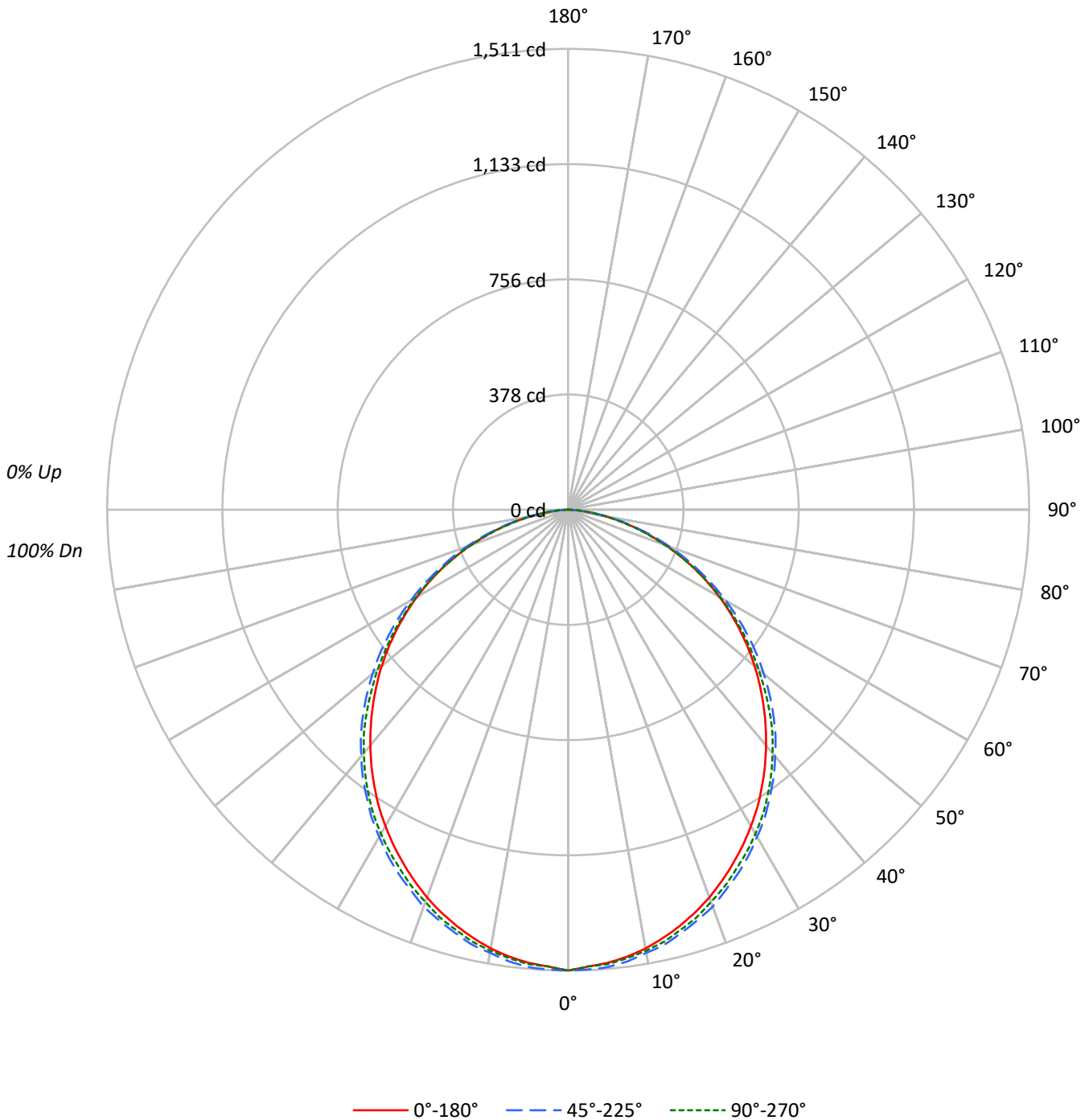
Lumens per Lamp: N/A
Luminaire Lumens: 3972.5 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2033	2033	2033
5°	2014	2033	2021
10°	1996	2016	2006
15°	1968	2000	1986
20°	1937	1983	1959
25°	1899	1955	1932
30°	1861	1924	1907
35°	1819	1891	1874
40°	1772	1853	1830
45°	1722	1809	1775
50°	1670	1751	1705
55°	1610	1685	1633
60°	1541	1605	1556
65°	1452	1508	1453
70°	1336	1390	1322
75°	1177	1230	1159
80°	956	998	945
85°	665	710	693



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	3.6
10°-20°	403.3	10.2
20°-30°	601.5	15.1
30°-40°	712.7	17.9
40°-50°	721.2	18.2
50°-60°	629.8	15.9
60°-70°	460.3	11.6
70°-80°	244.9	6.2
80°-90°	56.6	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°	1147.0	28.9
0°-40°	1859.7	46.8
0°-60°	3210.8	80.8
0°-90°	3972.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3972.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1491	1494	1505	1509	1496	141
15°	1413	1422	1436	1444	1426	398
25°	1279	1295	1317	1322	1302	589
35°	1108	1125	1151	1160	1141	693
45°	905	921	951	952	933	698
55°	686	700	718	708	696	613
65°	456	466	474	464	456	451
75°	226	232	237	228	223	241
85°	43	44	46	46	45	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1511.0	1511.0	1511.0	1511.0	1511.0
2.5°	1499.2	1504.1	1509.1	1511.3	1499.0
5°	1491.3	1494.2	1505.3	1508.8	1496.0
7.5°	1478.4	1482.7	1493.5	1495.1	1482.8
10°	1460.8	1468.3	1475.6	1483.4	1468.5
12.5°	1438.3	1448.5	1460.8	1462.2	1450.9
15°	1412.9	1422.4	1435.7	1444.4	1425.7
17.5°	1384.6	1393.7	1411.0	1412.6	1401.3
20°	1352.9	1364.3	1385.1	1388.7	1368.4
22.5°	1317.0	1332.3	1349.6	1353.1	1338.1
25°	1279.4	1295.2	1316.6	1321.5	1301.5
27.5°	1240.1	1255.2	1279.3	1282.7	1265.9
30°	1197.9	1212.0	1238.5	1244.3	1227.2
32.5°	1155.1	1169.2	1198.5	1203.4	1186.7
35°	1107.5	1124.8	1151.4	1159.5	1140.7
37.5°	1059.0	1075.9	1106.1	1113.3	1093.2
40°	1008.8	1025.5	1055.2	1061.2	1041.9
42.5°	957.5	974.2	1006.0	1006.9	990.9
45°	905.1	921.1	950.7	951.5	932.8
47.5°	851.8	868.1	894.5	891.5	873.9
50°	798.0	813.4	836.6	830.6	814.7
52.5°	742.3	757.2	779.1	769.4	754.4
55°	686.2	700.1	718.3	708.0	696.3
57.5°	629.7	643.7	657.7	647.2	637.1
60°	572.7	585.0	596.5	585.8	578.1
62.5°	514.8	525.3	535.3	525.0	517.8
65°	456.2	465.5	473.7	464.3	456.5
67.5°	398.0	405.9	413.4	403.6	395.6
70°	339.7	346.5	353.4	343.4	336.0
72.5°	282.3	288.3	294.4	284.6	278.2
75°	226.4	231.6	236.6	228.0	222.9
77.5°	173.0	177.4	180.9	175.4	170.5
80°	123.4	126.7	128.8	126.6	122.0
82.5°	79.3	81.7	82.8	82.6	79.7
85°	43.1	43.9	46.0	46.4	44.9
87.5°	16.7	17.8	18.3	19.7	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)