

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: P489576

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-27-120-EDD-90**

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: P489576
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-27-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

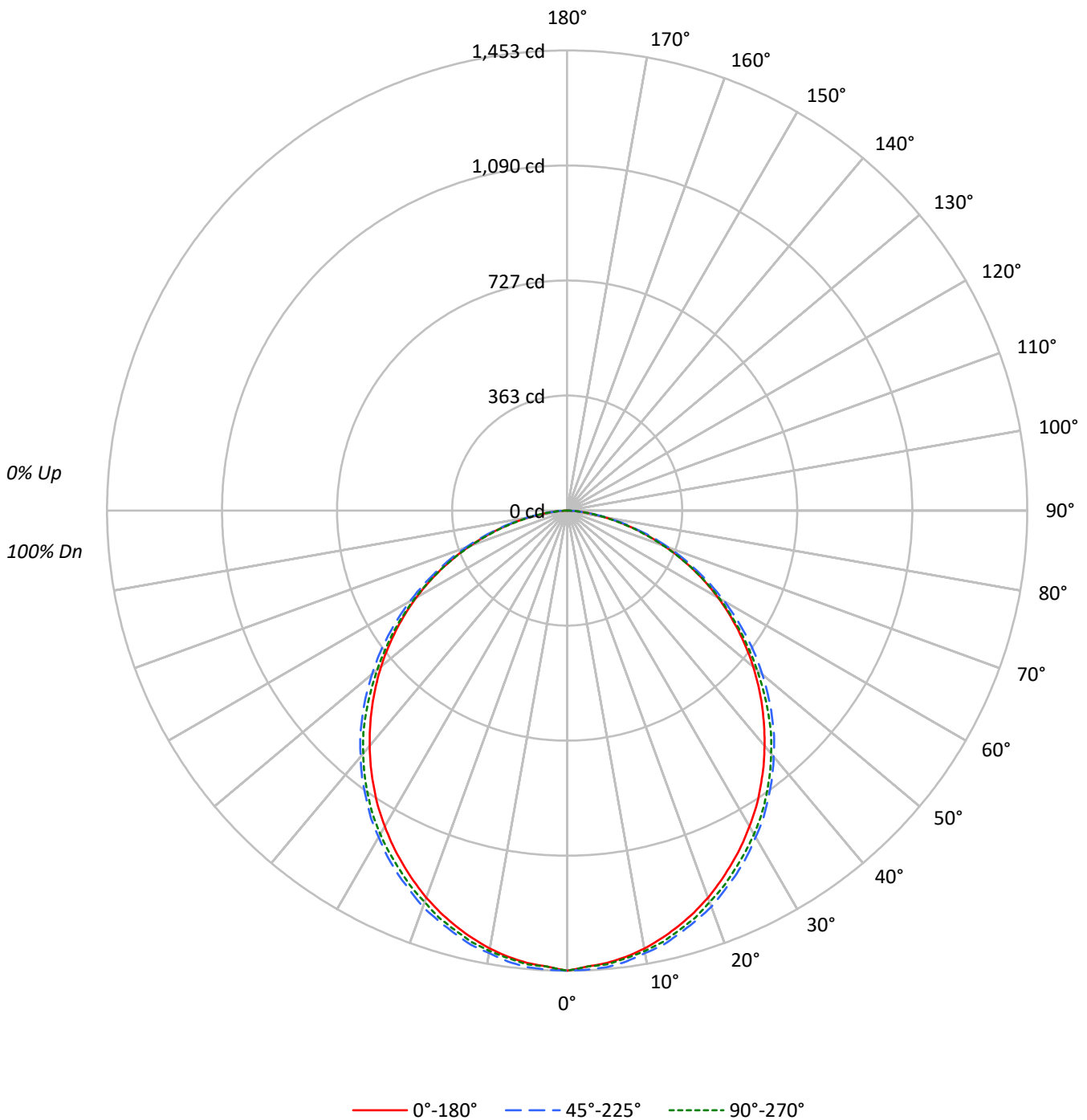
Lumens per Lamp: N/A
Luminaire Lumens: 3819.3 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1955	1955	1955
5°	1937	1955	1943
10°	1919	1938	1929
15°	1892	1923	1909
20°	1863	1907	1884
25°	1826	1879	1858
30°	1789	1850	1833
35°	1749	1818	1801
40°	1704	1782	1759
45°	1656	1739	1706
50°	1606	1684	1640
55°	1548	1620	1571
60°	1482	1543	1496
65°	1396	1450	1397
70°	1285	1337	1271
75°	1132	1183	1114
80°	920	959	909
85°	641	682	665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.8	3.6
10°-20°	387.7	10.2
20°-30°	578.3	15.1
30°-40°	685.2	17.9
40°-50°	693.4	18.2
50°-60°	605.5	15.9
60°-70°	442.5	11.6
70°-80°	235.4	6.2
80°-90°	54.4	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°	1102.8	28.9
0°-40°	1788.0	46.8
0°-60°	3086.9	80.8
0°-90°	3819.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3819.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1453	1453	1453	1453	1453	
5°	1434	1436	1447	1451	1438	136
15°	1358	1368	1380	1389	1371	383
25°	1230	1245	1266	1270	1251	567
35°	1065	1081	1107	1115	1097	666
45°	870	886	914	915	897	671
55°	660	673	691	681	670	590
65°	439	448	455	446	439	434
75°	218	223	228	219	214	231
85°	42	42	44	45	43	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1452.7	1452.7	1452.7	1452.7	1452.7
2.5°	1441.4	1446.1	1450.9	1453.0	1441.2
5°	1433.8	1436.5	1447.3	1450.6	1438.3
7.5°	1421.4	1425.5	1435.9	1437.4	1425.6
10°	1404.4	1411.7	1418.7	1426.2	1411.9
12.5°	1382.8	1392.6	1404.4	1405.8	1394.9
15°	1358.4	1367.5	1380.4	1388.7	1370.7
17.5°	1331.2	1340.0	1356.6	1358.1	1347.2
20°	1300.8	1311.7	1331.6	1335.1	1315.6
22.5°	1266.3	1280.9	1297.6	1300.9	1286.5
25°	1230.1	1245.2	1265.8	1270.5	1251.3
27.5°	1192.2	1206.8	1229.9	1233.3	1217.1
30°	1151.7	1165.3	1190.7	1196.3	1179.8
32.5°	1110.5	1124.1	1152.3	1157.0	1140.9
35°	1064.8	1081.4	1107.0	1114.7	1096.7
37.5°	1018.2	1034.4	1063.4	1070.4	1051.0
40°	969.9	985.9	1014.5	1020.3	1001.7
42.5°	920.6	936.6	967.2	968.1	952.6
45°	870.2	885.6	914.0	914.8	896.8
47.5°	819.0	834.6	860.0	857.1	840.2
50°	767.2	782.1	804.3	798.6	783.3
52.5°	713.6	728.0	749.1	739.7	725.3
55°	659.8	673.1	690.6	680.7	669.5
57.5°	605.4	618.9	632.4	622.2	612.5
60°	550.6	562.4	573.5	563.2	555.8
62.5°	494.9	505.1	514.6	504.8	497.8
65°	438.6	447.6	455.4	446.4	438.9
67.5°	382.6	390.2	397.5	388.1	380.4
70°	326.6	333.1	339.8	330.1	323.0
72.5°	271.4	277.1	283.0	273.7	267.4
75°	217.7	222.6	227.5	219.2	214.3
77.5°	166.3	170.6	173.9	168.6	163.9
80°	118.7	121.8	123.8	121.7	117.3
82.5°	76.3	78.6	79.6	79.5	76.6
85°	41.5	42.2	44.2	44.7	43.1
87.5°	16.0	17.1	17.6	18.9	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)