

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: P489603

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-30-120-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: P489603
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-30-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

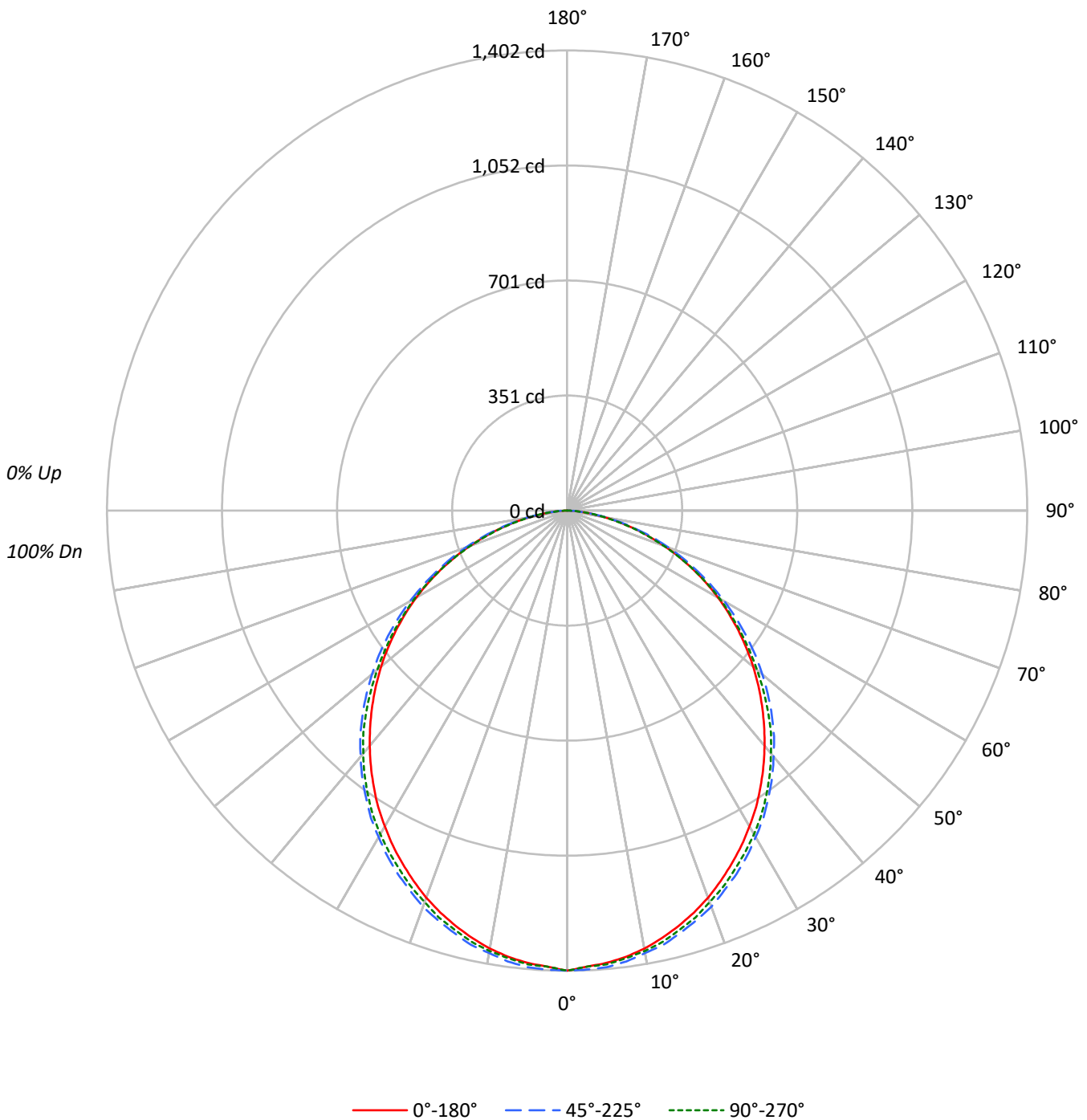
Lumens per Lamp: N/A
Luminaire Lumens: 3684.8 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1886	1886	1886
5°	1868	1886	1874
10°	1851	1870	1861
15°	1826	1855	1842
20°	1797	1839	1817
25°	1762	1813	1792
30°	1726	1785	1769
35°	1687	1754	1738
40°	1643	1719	1697
45°	1597	1678	1646
50°	1549	1624	1582
55°	1493	1563	1515
60°	1429	1489	1443
65°	1347	1399	1348
70°	1240	1290	1226
75°	1092	1141	1075
80°	887	926	877
85°	618	658	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	3.6
10°-20°	374.1	10.2
20°-30°	557.9	15.1
30°-40°	661.1	17.9
40°-50°	668.9	18.2
50°-60°	584.2	15.9
60°-70°	426.9	11.6
70°-80°	227.2	6.2
80°-90°	52.5	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°	1064.0	28.9
0°-40°	1725.1	46.8
0°-60°	2978.2	80.8
0°-90°	3684.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3684.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1383	1386	1396	1400	1388	131
15°	1311	1319	1332	1340	1322	369
25°	1187	1201	1221	1226	1207	547
35°	1027	1043	1068	1076	1058	642
45°	840	854	882	883	865	648
55°	636	649	666	657	646	569
65°	423	432	439	431	424	419
75°	210	215	220	211	207	223
85°	40	41	43	43	42	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1401.6	1401.6	1401.6	1401.6	1401.6
2.5°	1390.6	1395.1	1399.8	1401.9	1390.5
5°	1383.3	1385.9	1396.3	1399.5	1387.7
7.5°	1371.3	1375.3	1385.4	1386.8	1375.4
10°	1355.0	1362.0	1368.7	1376.0	1362.1
12.5°	1334.1	1343.6	1355.0	1356.3	1345.8
15°	1310.6	1319.4	1331.8	1339.8	1322.4
17.5°	1284.3	1292.8	1308.8	1310.3	1299.8
20°	1255.0	1265.5	1284.7	1288.1	1269.3
22.5°	1221.7	1235.8	1251.9	1255.1	1241.2
25°	1186.8	1201.4	1221.2	1225.8	1207.2
27.5°	1150.3	1164.3	1186.6	1189.8	1174.2
30°	1111.1	1124.3	1148.8	1154.2	1138.3
32.5°	1071.4	1084.5	1111.7	1116.2	1100.8
35°	1027.3	1043.4	1068.0	1075.5	1058.1
37.5°	982.3	997.9	1026.0	1032.7	1014.0
40°	935.7	951.2	978.8	984.4	966.4
42.5°	888.1	903.6	933.1	934.0	919.1
45°	839.5	854.4	881.9	882.6	865.2
47.5°	790.2	805.2	829.7	827.0	810.6
50°	740.2	754.5	776.0	770.4	755.7
52.5°	688.5	702.4	722.7	713.6	699.8
55°	636.5	649.4	666.3	656.7	645.9
57.5°	584.1	597.1	610.1	600.3	591.0
60°	531.2	542.6	553.3	543.4	536.2
62.5°	477.5	487.3	496.5	487.0	480.3
65°	423.2	431.8	439.4	430.6	423.5
67.5°	369.2	376.5	383.5	374.4	367.0
70°	315.1	321.4	327.8	318.5	311.6
72.5°	261.8	267.4	273.1	264.0	258.0
75°	210.0	214.8	219.5	211.4	206.8
77.5°	160.5	164.6	167.8	162.7	158.1
80°	114.5	117.6	119.5	117.4	113.2
82.5°	73.6	75.8	76.8	76.7	73.9
85°	40.0	40.7	42.6	43.1	41.6
87.5°	15.5	16.5	16.9	18.3	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)