

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: P489661

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3LO-27-120-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: P489661
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-LD4-3LO-27-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

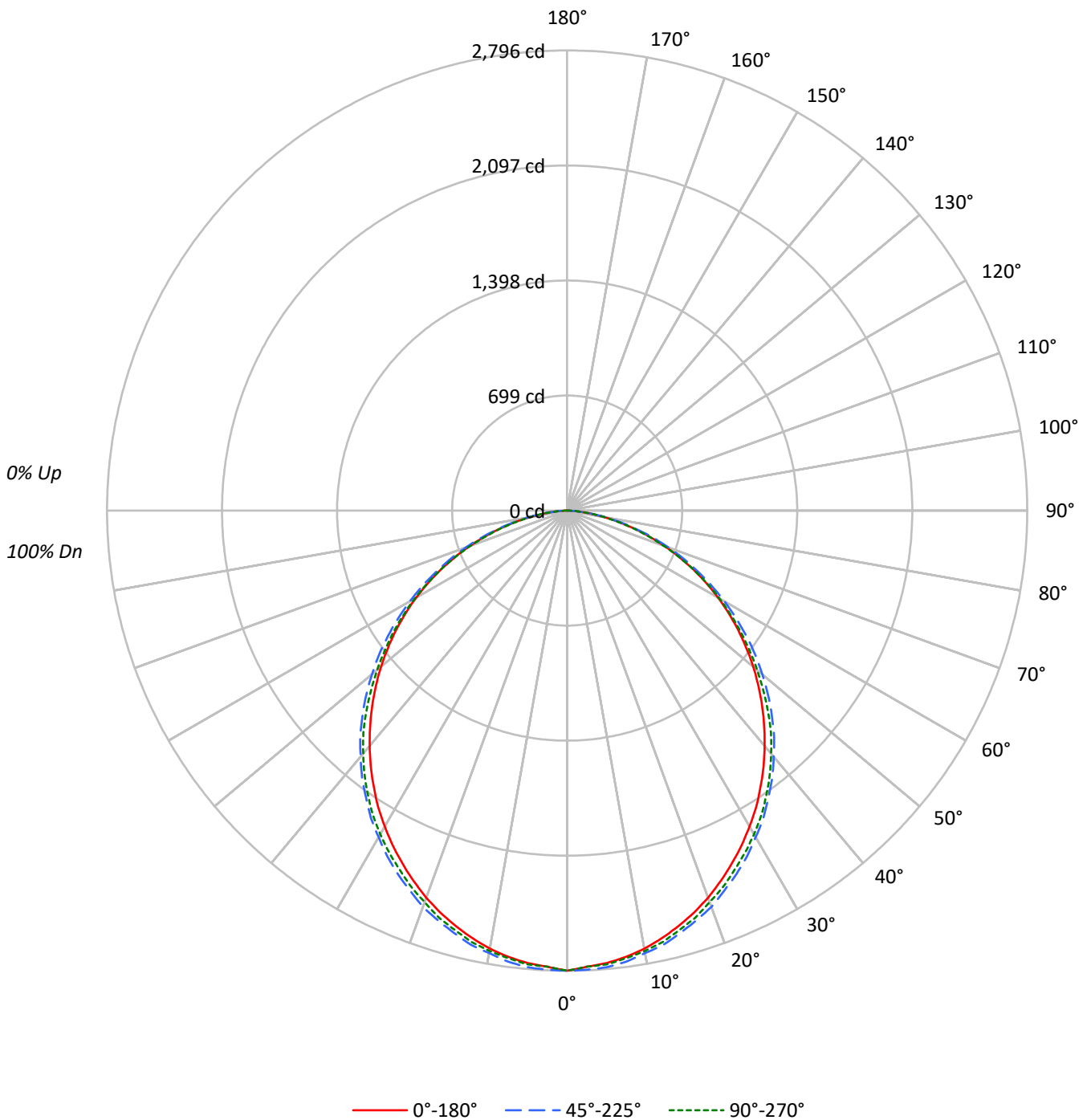
Lumens per Lamp: N/A
Luminaire Lumens: 7350.1 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	3762	3762	3762
5°	3727	3762	3739
10°	3693	3730	3712
15°	3641	3700	3674
20°	3584	3669	3625
25°	3514	3616	3575
30°	3443	3560	3528
35°	3366	3499	3467
40°	3278	3429	3386
45°	3186	3347	3284
50°	3091	3240	3155
55°	2978	3118	3022
60°	2852	2970	2878
65°	2687	2791	2689
70°	2473	2572	2445
75°	2178	2276	2144
80°	1770	1846	1749
85°	1232	1314	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.3	3.6
10°-20°	746.1	10.2
20°-30°	1112.8	15.1
30°-40°	1318.7	17.9
40°-50°	1334.3	18.2
50°-60°	1165.4	15.9
60°-70°	851.6	11.6
70°-80°	453.1	6.2
80°-90°	104.7	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°	2122.3	28.9
0°-40°	3441.0	46.8
0°-60°	5940.7	80.8
0°-90°	7350.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7350.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2796	2796	2796	2796	2796	
5°	2759	2764	2785	2792	2768	262
15°	2614	2632	2656	2672	2638	737
25°	2367	2396	2436	2445	2408	1091
35°	2049	2081	2130	2145	2111	1281
45°	1675	1704	1759	1760	1726	1292
55°	1270	1295	1329	1310	1288	1135
65°	844	861	876	859	845	835
75°	419	428	438	422	412	445
85°	80	81	85	86	83	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2795.7	2795.7	2795.7	2795.7	2795.7
2.5°	2773.9	2782.9	2792.2	2796.3	2773.6
5°	2759.3	2764.5	2785.2	2791.6	2768.0
7.5°	2735.4	2743.3	2763.4	2766.3	2743.6
10°	2702.8	2716.8	2730.2	2744.7	2717.1
12.5°	2661.1	2680.1	2702.8	2705.4	2684.4
15°	2614.2	2631.7	2656.5	2672.5	2637.8
17.5°	2561.8	2578.7	2610.8	2613.7	2592.7
20°	2503.3	2524.2	2562.7	2569.4	2531.8
22.5°	2436.9	2465.1	2497.2	2503.6	2475.9
25°	2367.2	2396.4	2436.0	2445.0	2408.0
27.5°	2294.4	2322.4	2367.0	2373.4	2342.2
30°	2216.4	2242.6	2291.5	2302.3	2270.5
32.5°	2137.1	2163.3	2217.5	2226.6	2195.7
35°	2049.2	2081.2	2130.4	2145.3	2110.6
37.5°	1959.4	1990.6	2046.5	2059.9	2022.7
40°	1866.5	1897.4	1952.5	1963.5	1927.7
42.5°	1771.6	1802.4	1861.3	1863.0	1833.3
45°	1674.6	1704.3	1759.0	1760.5	1725.8
47.5°	1576.1	1606.1	1655.1	1649.5	1616.9
50°	1476.5	1505.0	1547.9	1536.8	1507.4
52.5°	1373.4	1401.1	1441.6	1423.5	1395.8
55°	1269.7	1295.3	1329.1	1309.9	1288.3
57.5°	1165.1	1191.0	1217.0	1197.5	1178.8
60°	1059.7	1082.4	1103.7	1083.9	1069.6
62.5°	952.5	972.0	990.4	971.4	958.0
65°	844.1	861.3	876.5	859.0	844.7
67.5°	736.4	750.9	764.9	746.8	732.0
70°	628.6	641.1	653.9	635.3	621.6
72.5°	522.3	533.3	544.7	526.6	514.7
75°	418.9	428.5	437.8	421.8	412.5
77.5°	320.1	328.3	334.7	324.5	315.5
80°	228.4	234.5	238.3	234.2	225.7
82.5°	146.8	151.2	153.2	152.9	147.4
85°	79.8	81.3	85.1	85.9	83.0
87.5°	30.9	32.9	33.8	36.4	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)