

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: P488731

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-40-120-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: P488731
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-12-4-INS-A19156-LD4-3LO-40-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

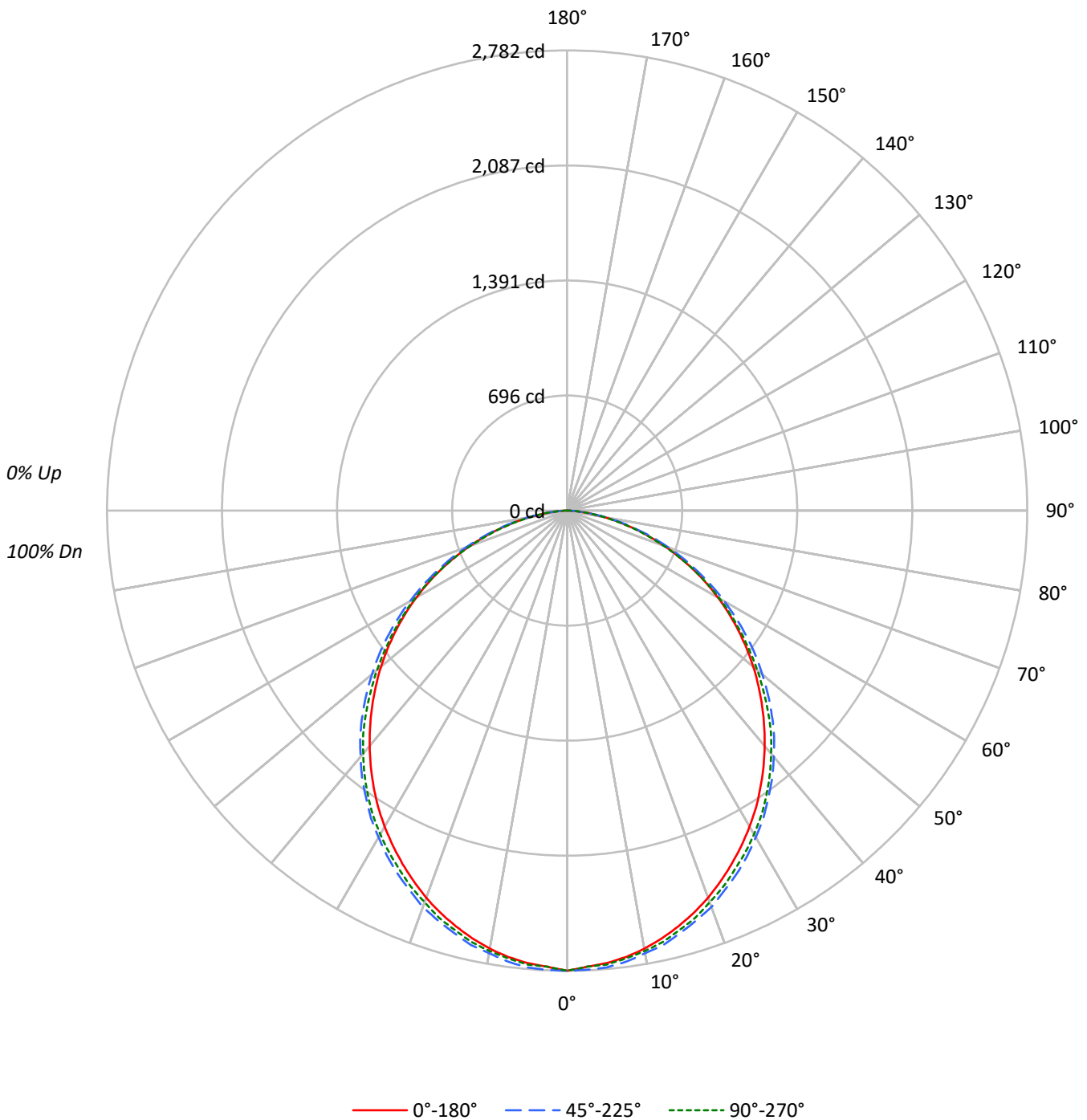
Lumens per Lamp: N/A
Luminaire Lumens: 7314.5 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7487	7487	7487
5°	7417	7487	7441
10°	7350	7424	7388
15°	7248	7365	7313
20°	7134	7303	7215
25°	6995	7198	7115
30°	6853	7086	7021
35°	6699	6965	6900
40°	6525	6825	6739
45°	6342	6662	6536
50°	6152	6449	6280
55°	5928	6206	6015
60°	5675	5911	5729
65°	5349	5554	5352
70°	4921	5120	4867
75°	4334	4530	4268
80°	3522	3674	3481
85°	2452	2612	2550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.0	3.6
10°-20°	742.5	10.2
20°-30°	1107.4	15.1
30°-40°	1312.3	17.9
40°-50°	1327.9	18.2
50°-60°	1159.7	15.9
60°-70°	847.5	11.6
70°-80°	450.9	6.2
80°-90°	104.2	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°	2112.0	28.9
0°-40°	3424.3	46.8
0°-60°	5911.9	80.8
0°-90°	7314.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7314.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2782	2782	2782	2782	2782	
5°	2746	2751	2772	2778	2755	260
15°	2602	2619	2644	2660	2625	733
25°	2356	2385	2424	2433	2396	1085
35°	2039	2071	2120	2135	2100	1275
45°	1666	1696	1750	1752	1718	1286
55°	1264	1289	1323	1304	1282	1129
65°	840	857	872	855	841	831
75°	417	426	436	420	410	443
85°	79	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°	2782.2	2782.2	2782.2	2782.2	2782.2
2.5°	2760.4	2769.4	2778.7	2782.8	2760.1
5°	2745.9	2751.2	2771.7	2778.1	2754.6
7.5°	2722.2	2730.0	2750.0	2752.9	2730.3
10°	2689.7	2703.6	2717.0	2731.4	2703.9
12.5°	2648.3	2667.1	2689.7	2692.3	2671.4
15°	2601.6	2619.0	2643.6	2659.6	2625.1
17.5°	2549.4	2566.2	2598.1	2601.0	2580.1
20°	2491.1	2512.0	2550.3	2556.9	2519.6
22.5°	2425.1	2453.2	2485.1	2491.4	2463.9
25°	2355.8	2384.8	2424.2	2433.2	2396.4
27.5°	2283.3	2311.1	2355.5	2361.9	2330.8
30°	2205.6	2231.7	2280.4	2291.1	2259.5
32.5°	2126.8	2152.9	2206.8	2215.8	2185.0
35°	2039.2	2071.1	2120.1	2134.9	2100.4
37.5°	1950.0	1981.0	2036.6	2050.0	2012.9
40°	1857.5	1888.2	1943.0	1954.0	1918.4
42.5°	1763.0	1793.7	1852.3	1854.0	1824.4
45°	1666.5	1696.0	1750.5	1752.0	1717.5
47.5°	1568.5	1598.3	1647.0	1641.5	1609.1
50°	1469.4	1497.8	1540.4	1529.4	1500.1
52.5°	1366.7	1394.3	1434.6	1416.6	1389.1
55°	1263.5	1289.1	1322.7	1303.5	1282.1
57.5°	1159.5	1185.3	1211.1	1191.7	1173.1
60°	1054.5	1077.2	1098.3	1078.6	1064.4
62.5°	947.9	967.3	985.6	966.7	953.4
65°	840.0	857.1	872.2	854.8	840.6
67.5°	732.8	747.3	761.2	743.2	728.4
70°	625.5	638.0	650.8	632.2	618.6
72.5°	519.7	530.8	542.1	524.1	512.2
75°	416.8	426.4	435.7	419.7	410.5
77.5°	318.6	326.7	333.1	322.9	313.9
80°	227.3	233.3	237.1	233.1	224.6
82.5°	146.1	150.4	152.5	152.2	146.7
85°	79.4	80.9	84.6	85.5	82.6
87.5°	30.7	32.8	33.6	36.2	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)