

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: P489668

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3LO-50-120-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: P489668
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-50-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

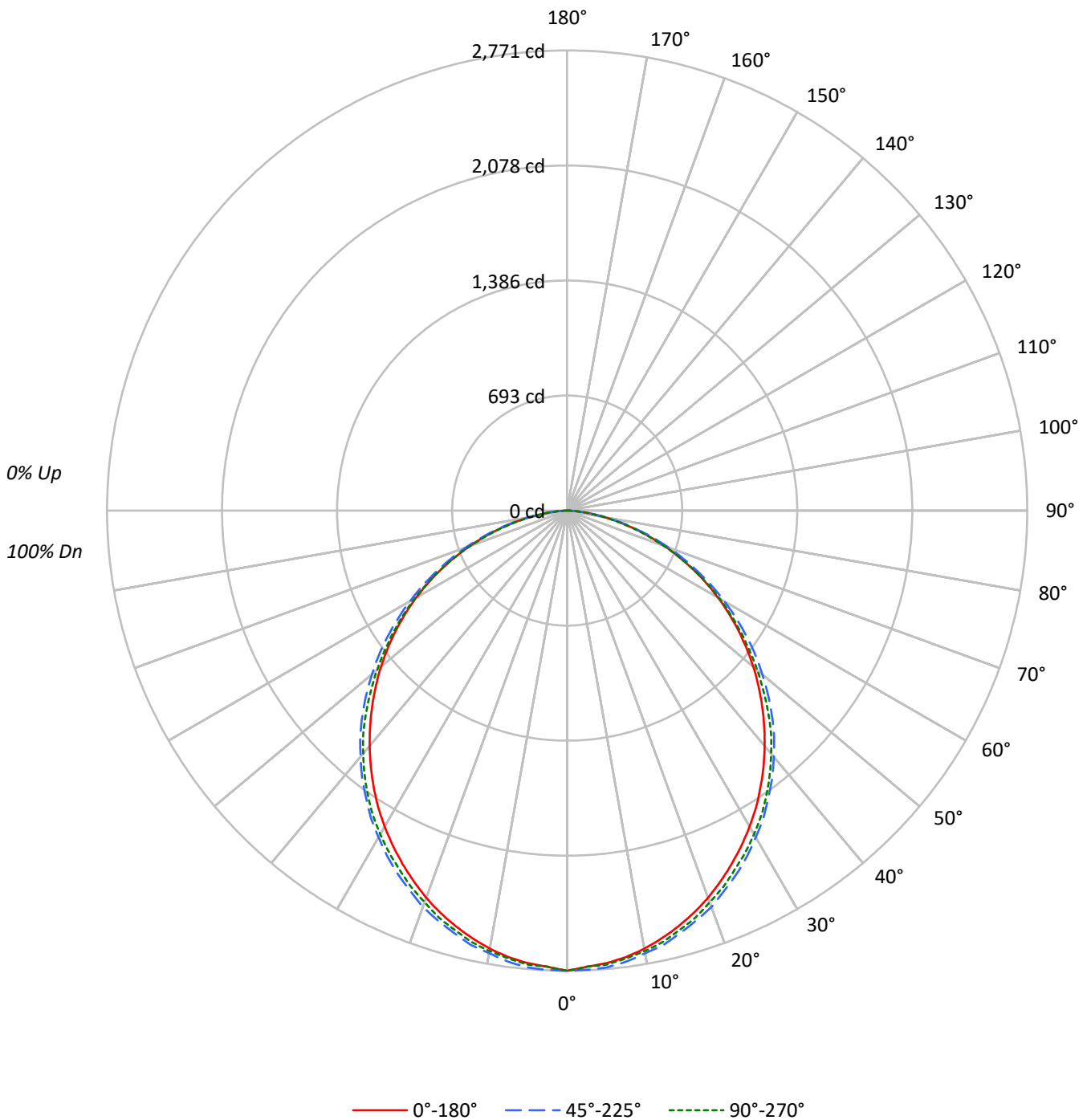
Lumens per Lamp: N/A
Luminaire Lumens: 7285.7 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3729	3729	3729
5°	3694	3729	3706
10°	3660	3697	3680
15°	3610	3668	3642
20°	3553	3637	3593
25°	3484	3585	3544
30°	3413	3529	3497
35°	3336	3469	3436
40°	3250	3399	3356
45°	3158	3318	3255
50°	3064	3212	3128
55°	2952	3091	2996
60°	2827	2944	2853
65°	2664	2766	2666
70°	2451	2550	2424
75°	2158	2256	2125
80°	1754	1830	1734
85°	1221	1301	1271



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.0	3.6
10°-20°	739.6	10.2
20°-30°	1103.1	15.1
30°-40°	1307.2	17.9
40°-50°	1322.7	18.2
50°-60°	1155.1	15.9
60°-70°	844.1	11.6
70°-80°	449.1	6.2
80°-90°	103.8	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°	2103.7	28.9
0°-40°	3410.8	46.8
0°-60°	5888.6	80.8
0°-90°	7285.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7285.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2771	2771	2771	2771	2771	
5°	2735	2740	2761	2767	2744	259
15°	2591	2609	2633	2649	2615	731
25°	2346	2375	2415	2424	2387	1081
35°	2031	2063	2112	2126	2092	1270
45°	1660	1689	1744	1745	1711	1281
55°	1259	1284	1318	1298	1277	1125
65°	837	854	869	852	837	828
75°	415	425	434	418	409	441
85°	79	81	84	85	82	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2771.2	2771.2	2771.2	2771.2	2771.2
2.5°	2749.6	2758.5	2767.8	2771.8	2749.3
5°	2735.1	2740.3	2760.8	2767.2	2743.8
7.5°	2711.5	2719.2	2739.2	2742.1	2719.5
10°	2679.1	2693.0	2706.3	2720.7	2693.3
12.5°	2637.8	2656.6	2679.1	2681.7	2660.9
15°	2591.3	2608.7	2633.2	2649.1	2614.7
17.5°	2539.4	2556.1	2587.9	2590.8	2570.0
20°	2481.3	2502.1	2540.2	2546.9	2509.6
22.5°	2415.5	2443.5	2475.3	2481.6	2454.2
25°	2346.5	2375.4	2414.6	2423.6	2386.9
27.5°	2274.3	2302.0	2346.2	2352.6	2321.7
30°	2196.9	2222.9	2271.4	2282.1	2250.6
32.5°	2118.4	2144.4	2198.1	2207.0	2176.4
35°	2031.2	2063.0	2111.8	2126.5	2092.1
37.5°	1942.3	1973.2	2028.6	2041.9	2004.9
40°	1850.2	1880.8	1935.4	1946.3	1910.8
42.5°	1756.0	1786.7	1845.0	1846.7	1817.3
45°	1659.9	1689.4	1743.6	1745.1	1710.7
47.5°	1562.3	1592.1	1640.6	1635.1	1602.7
50°	1463.6	1491.9	1534.3	1523.3	1494.2
52.5°	1361.4	1388.8	1428.9	1411.0	1383.6
55°	1258.6	1284.0	1317.5	1298.4	1277.0
57.5°	1154.9	1180.6	1206.3	1187.0	1168.5
60°	1050.4	1072.9	1094.0	1074.4	1060.2
62.5°	944.1	963.5	981.7	962.9	949.6
65°	836.7	853.8	868.8	851.5	837.3
67.5°	729.9	744.3	758.2	740.3	725.6
70°	623.1	635.5	648.2	629.7	616.1
72.5°	517.7	528.7	539.9	522.0	510.2
75°	415.2	424.7	434.0	418.1	408.8
77.5°	317.3	325.4	331.7	321.6	312.7
80°	226.4	232.4	236.2	232.1	223.8
82.5°	145.5	149.9	151.9	151.6	146.1
85°	79.1	80.6	84.3	85.2	82.3
87.5°	30.6	32.6	33.5	36.1	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)