

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: P489643

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2STD-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: P489643
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-LD4-2STD-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

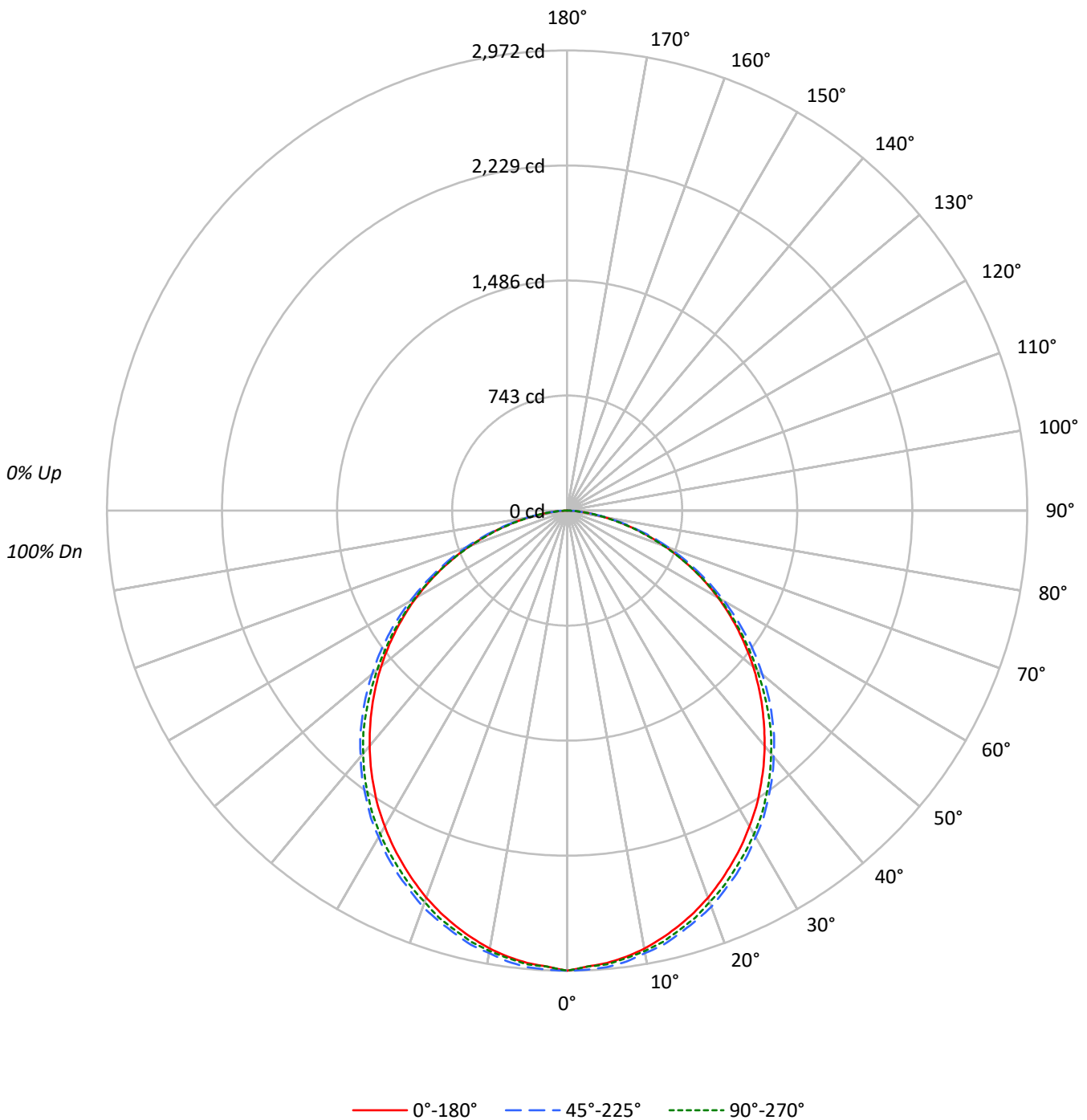
Lumens per Lamp: N/A
Luminaire Lumens: 7812.4 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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	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°	3998	3998	3998
5°	3961	3998	3974
10°	3925	3965	3946
15°	3871	3933	3906
20°	3810	3900	3853
25°	3735	3844	3800
30°	3660	3784	3749
35°	3577	3719	3685
40°	3485	3645	3599
45°	3387	3558	3491
50°	3285	3444	3354
55°	3166	3314	3212
60°	3031	3157	3059
65°	2856	2966	2858
70°	2628	2734	2599
75°	2314	2419	2279
80°	1881	1963	1859
85°	1309	1396	1362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	3.6
10°-20°	793.1	10.2
20°-30°	1182.8	15.1
30°-40°	1401.7	17.9
40°-50°	1418.3	18.2
50°-60°	1238.7	15.9
60°-70°	905.1	11.6
70°-80°	481.6	6.2
80°-90°	111.3	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°	2255.8	28.9
0°-40°	3657.4	46.8
0°-60°	6314.3	80.8
0°-90°	7812.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7812.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2972	2972	2972	2972	2972	
5°	2933	2938	2960	2967	2942	278
15°	2779	2797	2824	2841	2804	783
25°	2516	2547	2589	2599	2560	1159
35°	2178	2212	2264	2280	2243	1362
45°	1780	1812	1870	1871	1834	1373
55°	1350	1377	1413	1392	1369	1206
65°	897	916	932	913	898	888
75°	445	455	465	448	438	473
85°	85	86	90	91	88	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2971.6	2971.6	2971.6	2971.6	2971.6
2.5°	2948.3	2957.9	2967.8	2972.2	2948.0
5°	2932.9	2938.4	2960.4	2967.2	2942.1
7.5°	2907.5	2915.8	2937.2	2940.3	2916.1
10°	2872.8	2887.7	2901.9	2917.4	2888.0
12.5°	2828.5	2848.6	2872.8	2875.6	2853.3
15°	2778.7	2797.3	2823.6	2840.6	2803.8
17.5°	2722.9	2740.9	2775.0	2778.1	2755.8
20°	2660.7	2683.0	2723.9	2731.0	2691.1
22.5°	2590.1	2620.2	2654.2	2661.0	2631.6
25°	2516.1	2547.1	2589.2	2598.8	2559.5
27.5°	2438.7	2468.5	2515.8	2522.6	2489.5
30°	2355.8	2383.6	2435.6	2447.1	2413.3
32.5°	2271.5	2299.4	2357.0	2366.6	2333.8
35°	2178.0	2212.1	2264.4	2280.2	2243.4
37.5°	2082.7	2115.8	2175.3	2189.5	2149.9
40°	1983.9	2016.7	2075.3	2087.0	2048.9
42.5°	1883.0	1915.8	1978.4	1980.2	1948.6
45°	1779.9	1811.5	1869.7	1871.2	1834.4
47.5°	1675.3	1707.1	1759.2	1753.3	1718.6
50°	1569.4	1599.7	1645.2	1633.5	1602.2
52.5°	1459.8	1489.2	1532.2	1513.0	1483.6
55°	1349.6	1376.8	1412.7	1392.3	1369.4
57.5°	1238.4	1266.0	1293.5	1272.8	1253.0
60°	1126.3	1150.5	1173.1	1152.0	1136.9
62.5°	1012.4	1033.1	1052.6	1032.5	1018.3
65°	897.2	915.5	931.6	913.0	897.8
67.5°	782.7	798.2	813.0	793.8	778.0
70°	668.1	681.4	695.1	675.2	660.7
72.5°	555.1	566.9	579.0	559.8	547.1
75°	445.2	455.4	465.3	448.3	438.4
77.5°	340.3	348.9	355.7	344.9	335.3
80°	242.7	249.2	253.3	248.9	239.9
82.5°	156.0	160.7	162.9	162.5	156.7
85°	84.8	86.4	90.4	91.3	88.2
87.5°	32.8	35.0	35.9	38.7	35.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)