

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: P489663

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3LO-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: P489663
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-30-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

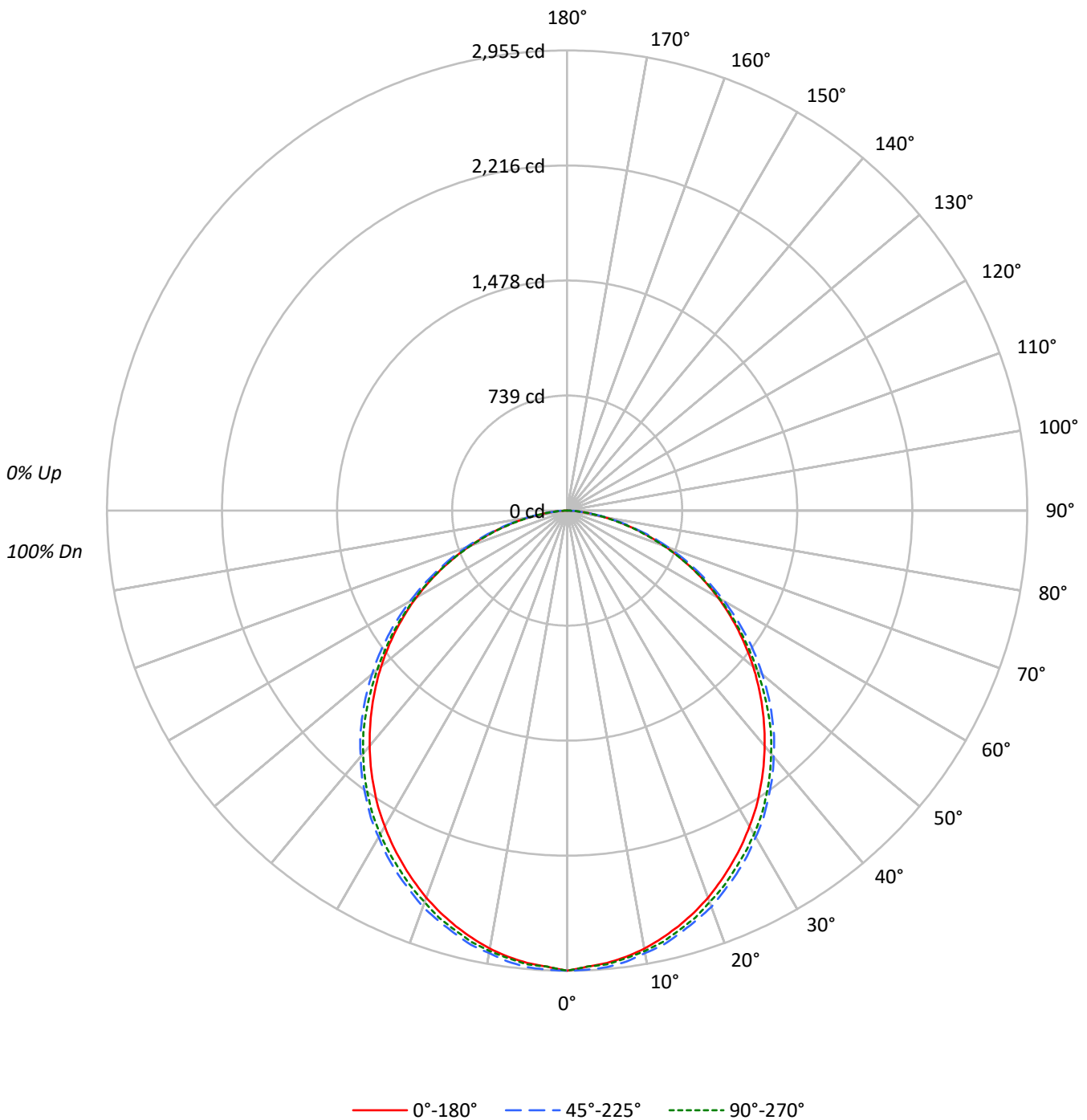
Lumens per Lamp: N/A
Luminaire Lumens: 7768.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3976	3976	3976
5°	3939	3976	3951
10°	3903	3942	3923
15°	3849	3911	3883
20°	3788	3878	3831
25°	3714	3822	3778
30°	3639	3763	3728
35°	3557	3698	3664
40°	3465	3624	3578
45°	3368	3538	3471
50°	3266	3424	3335
55°	3148	3295	3194
60°	3014	3139	3042
65°	2840	2949	2842
70°	2613	2719	2584
75°	2301	2405	2266
80°	1870	1951	1849
85°	1301	1388	1354



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.3	3.6
10°-20°	788.6	10.2
20°-30°	1176.1	15.1
30°-40°	1393.7	17.9
40°-50°	1410.2	18.2
50°-60°	1231.6	15.9
60°-70°	900.0	11.6
70°-80°	478.9	6.2
80°-90°	110.7	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°	2242.9	28.9
0°-40°	3636.6	46.8
0°-60°	6278.5	80.8
0°-90°	7768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7768.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2955	2955	2955	2955	2955	
5°	2916	2922	2944	2950	2925	277
15°	2763	2781	2808	2824	2788	779
25°	2502	2533	2574	2584	2545	1153
35°	2166	2200	2252	2267	2231	1354
45°	1770	1801	1859	1861	1824	1365
55°	1342	1369	1405	1384	1362	1200
65°	892	910	926	908	893	883
75°	443	453	463	446	436	471
85°	84	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°	2954.7	2954.7	2954.7	2954.7	2954.7
2.5°	2931.6	2941.1	2951.0	2955.3	2931.3
5°	2916.2	2921.7	2943.6	2950.4	2925.4
7.5°	2890.9	2899.3	2920.5	2923.6	2899.6
10°	2856.5	2871.2	2885.4	2900.8	2871.6
12.5°	2812.4	2832.5	2856.5	2859.2	2837.1
15°	2762.9	2781.4	2807.5	2824.5	2787.8
17.5°	2707.5	2725.3	2759.2	2762.3	2740.1
20°	2645.6	2667.8	2708.4	2715.5	2675.8
22.5°	2575.4	2605.3	2639.1	2645.9	2616.7
25°	2501.8	2532.6	2574.5	2584.0	2544.9
27.5°	2424.9	2454.4	2501.5	2508.3	2475.4
30°	2342.4	2370.1	2421.8	2433.2	2399.6
32.5°	2258.6	2286.3	2343.6	2353.1	2320.5
35°	2165.7	2199.5	2251.6	2267.3	2230.6
37.5°	2070.9	2103.8	2162.9	2177.1	2137.7
40°	1972.7	2005.3	2063.5	2075.2	2037.3
42.5°	1872.3	1904.9	1967.1	1969.0	1937.6
45°	1769.8	1801.2	1859.1	1860.6	1824.0
47.5°	1665.7	1697.4	1749.2	1743.3	1708.8
50°	1560.5	1590.6	1635.9	1624.2	1593.1
52.5°	1451.5	1480.7	1523.5	1504.4	1475.2
55°	1341.9	1369.0	1404.7	1384.4	1361.6
57.5°	1231.4	1258.8	1286.2	1265.5	1245.8
60°	1119.9	1143.9	1166.4	1145.5	1130.4
62.5°	1006.6	1027.3	1046.7	1026.7	1012.5
65°	892.1	910.3	926.3	907.8	892.7
67.5°	778.2	793.6	808.4	789.3	773.6
70°	664.3	677.6	691.1	671.4	656.9
72.5°	552.0	563.7	575.7	556.6	544.0
75°	442.7	452.8	462.7	445.8	435.9
77.5°	338.3	346.9	353.7	342.9	333.4
80°	241.3	247.8	251.8	247.5	238.6
82.5°	155.2	159.8	161.9	161.6	155.8
85°	84.3	85.9	89.9	90.8	87.7
87.5°	32.6	34.8	35.7	38.5	35.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)