

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: P488707

Luminaire Tested: **CLM-12-4-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: P488707
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-LD4-2STD-40-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

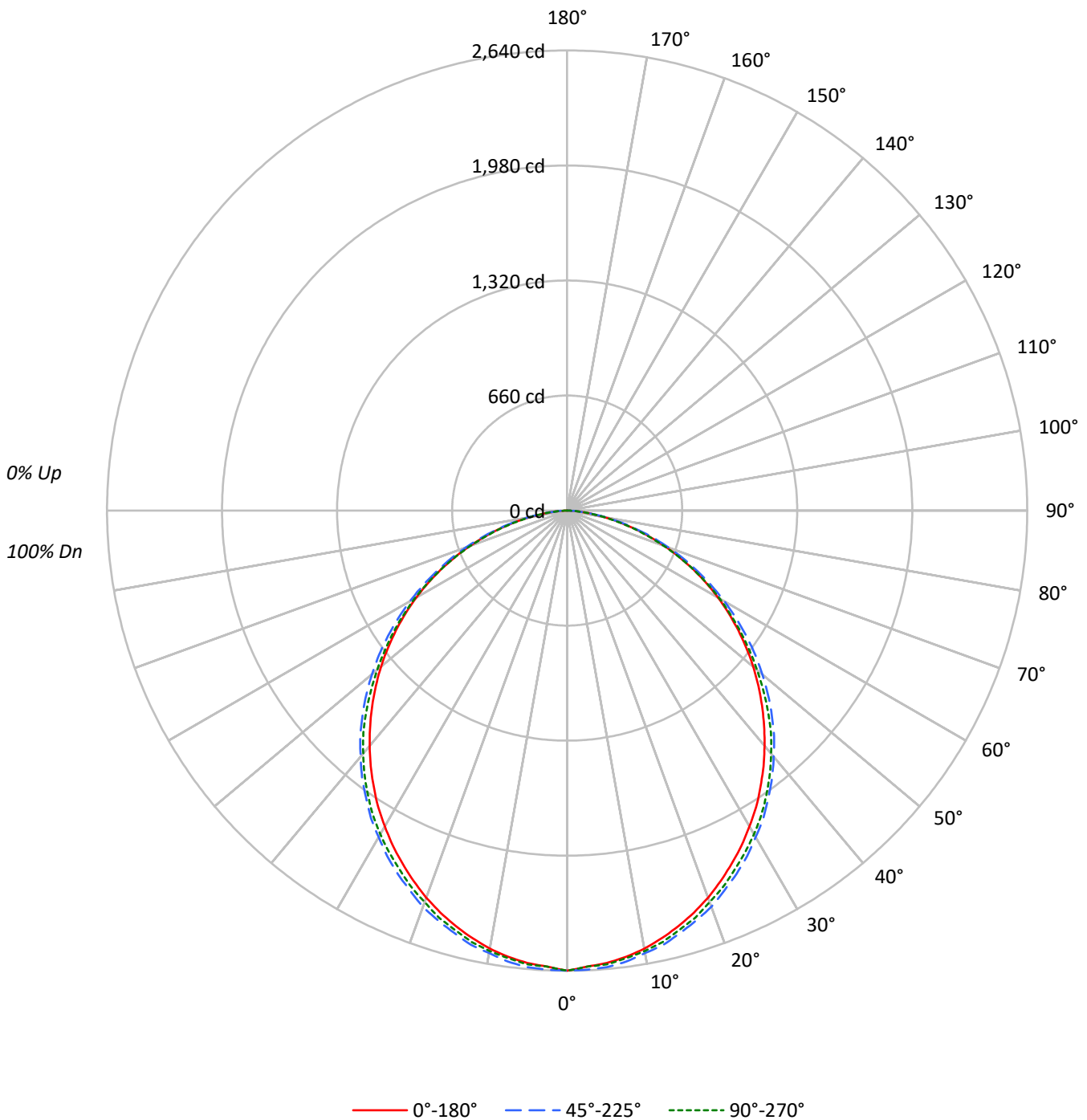
Lumens per Lamp: N/A
Luminaire Lumens: 6939.4 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	7103	7103	7103
5°	7037	7103	7059
10°	6973	7043	7009
15°	6876	6987	6938
20°	6768	6929	6845
25°	6636	6829	6750
30°	6502	6723	6661
35°	6356	6608	6546
40°	6190	6476	6393
45°	6017	6320	6201
50°	5836	6118	5958
55°	5624	5887	5706
60°	5385	5608	5435
65°	5075	5269	5078
70°	4670	4858	4618
75°	4112	4297	4049
80°	3341	3487	3302
85°	2328	2479	2421



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.6	3.6
10°-20°	704.4	10.2
20°-30°	1050.7	15.1
30°-40°	1245.0	17.9
40°-50°	1259.8	18.2
50°-60°	1100.2	15.9
60°-70°	804.0	11.6
70°-80°	427.8	6.2
80°-90°	98.9	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°	2003.7	28.9
0°-40°	3248.7	46.8
0°-60°	5608.7	80.8
0°-90°	6939.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6939.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2640	2640	2640	2640	2640	
5°	2605	2610	2630	2636	2613	247
15°	2468	2485	2508	2523	2490	696
25°	2235	2262	2300	2308	2274	1030
35°	1935	1965	2011	2025	1993	1210
45°	1581	1609	1661	1662	1629	1220
55°	1199	1223	1255	1237	1216	1072
65°	797	813	828	811	798	789
75°	396	404	413	398	389	420
85°	75	77	80	81	78	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2639.5	2639.5	2639.5	2639.5	2639.5
2.5°	2618.9	2627.4	2636.2	2640.1	2618.6
5°	2605.1	2610.1	2629.6	2635.7	2613.4
7.5°	2582.6	2590.0	2609.0	2611.7	2590.3
10°	2551.8	2565.0	2577.6	2591.4	2565.2
12.5°	2512.4	2530.3	2551.8	2554.2	2534.4
15°	2468.2	2484.7	2508.0	2523.2	2490.4
17.5°	2418.7	2434.6	2464.9	2467.6	2447.8
20°	2363.4	2383.2	2419.5	2425.8	2390.3
22.5°	2300.7	2327.4	2357.6	2363.7	2337.5
25°	2235.0	2262.5	2299.9	2308.4	2273.5
27.5°	2166.2	2192.6	2234.7	2240.7	2211.3
30°	2092.5	2117.3	2163.5	2173.6	2143.7
32.5°	2017.7	2042.5	2093.6	2102.1	2073.0
35°	1934.7	1964.9	2011.4	2025.4	1992.7
37.5°	1850.0	1879.4	1932.2	1944.8	1909.6
40°	1762.2	1791.4	1843.4	1853.8	1820.0
42.5°	1672.6	1701.7	1757.3	1758.9	1730.9
45°	1581.0	1609.1	1660.8	1662.1	1629.4
47.5°	1488.1	1516.4	1562.6	1557.4	1526.6
50°	1394.0	1421.0	1461.4	1450.9	1423.2
52.5°	1296.6	1322.8	1361.0	1344.0	1317.8
55°	1198.7	1222.9	1254.8	1236.7	1216.3
57.5°	1100.0	1124.5	1149.0	1130.5	1112.9
60°	1000.5	1021.9	1042.0	1023.3	1009.8
62.5°	899.3	917.7	935.0	917.1	904.5
65°	797.0	813.2	827.5	811.0	797.5
67.5°	695.2	709.0	722.2	705.1	691.1
70°	593.5	605.3	617.4	599.8	586.9
72.5°	493.1	503.5	514.3	497.2	485.9
75°	395.5	404.5	413.3	398.2	389.4
77.5°	302.2	309.9	316.0	306.4	297.8
80°	215.6	221.4	225.0	221.1	213.1
82.5°	138.6	142.7	144.7	144.4	139.2
85°	75.4	76.7	80.3	81.1	78.4
87.5°	29.2	31.1	31.9	34.4	31.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)