

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: P489201

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-50-120-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: P489201
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-24-2-INS-A19156-LD4-5LO-50-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

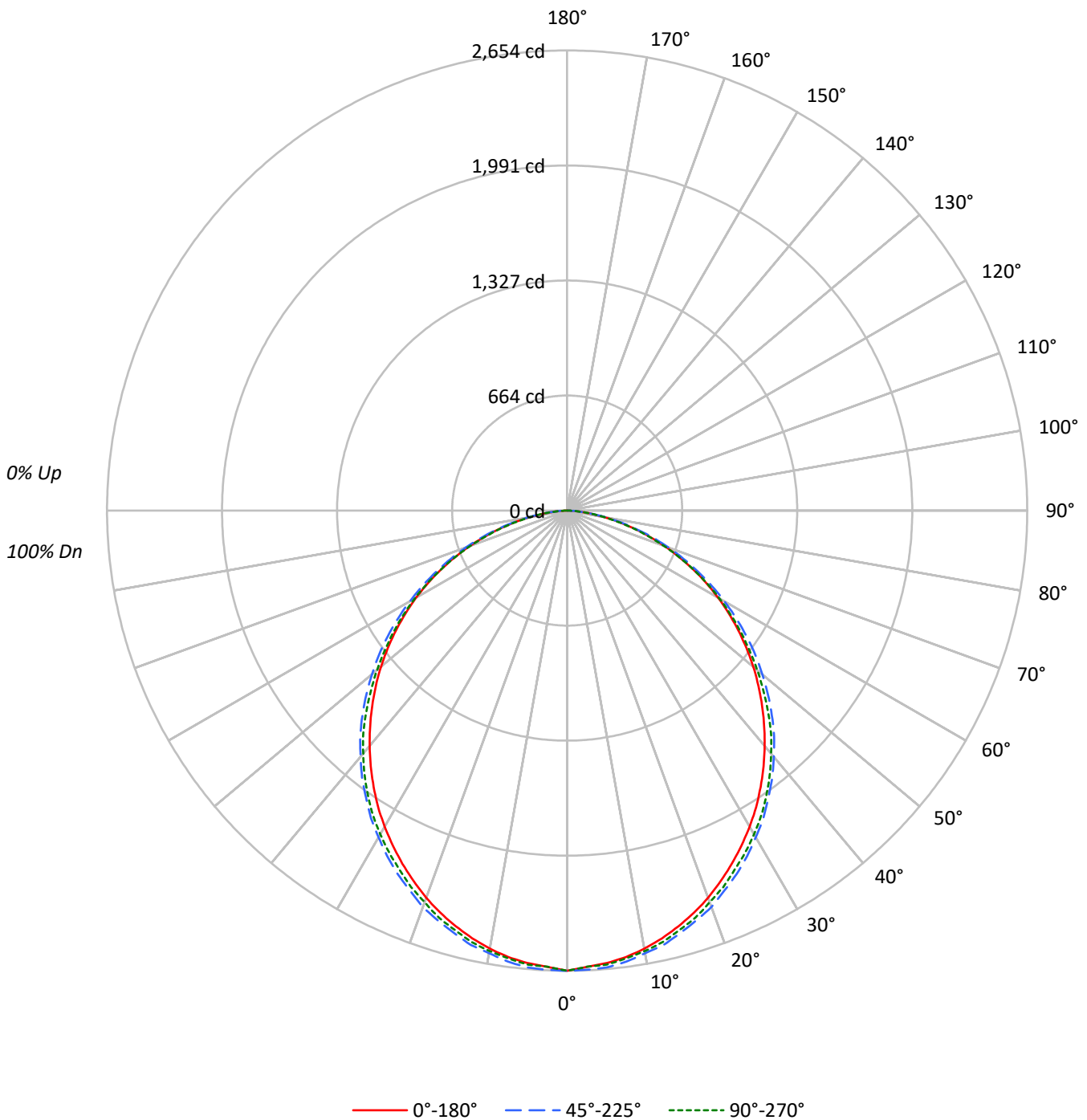
Lumens per Lamp: N/A
Luminaire Lumens: 6978.4 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.5
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°	7143	7143	7143
5°	7077	7143	7099
10°	7012	7083	7049
15°	6915	7026	6977
20°	6806	6968	6884
25°	6673	6867	6788
30°	6539	6760	6698
35°	6391	6645	6583
40°	6225	6512	6429
45°	6051	6356	6236
50°	5869	6152	5992
55°	5656	5920	5739
60°	5415	5640	5465
65°	5103	5298	5107
70°	4696	4885	4644
75°	4135	4322	4072
80°	3360	3505	3321
85°	2340	2495	2433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.0	3.6
10°-20°	708.4	10.2
20°-30°	1056.6	15.1
30°-40°	1252.0	17.9
40°-50°	1266.9	18.2
50°-60°	1106.4	15.9
60°-70°	808.5	11.6
70°-80°	430.2	6.2
80°-90°	99.4	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°	2014.9	28.9
0°-40°	3267.0	46.8
0°-60°	5640.2	80.8
0°-90°	6978.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6978.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2654	2654	2654	2654	2654	
5°	2620	2625	2644	2650	2628	248
15°	2482	2499	2522	2537	2504	700
25°	2248	2275	2313	2321	2286	1035
35°	1946	1976	2023	2037	2004	1217
45°	1590	1618	1670	1672	1639	1227
55°	1206	1230	1262	1244	1223	1078
65°	801	818	832	816	802	793
75°	398	407	416	400	392	423
85°	76	77	81	82	79	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2654.3	2654.3	2654.3	2654.3	2654.3
2.5°	2633.6	2642.2	2651.0	2654.9	2633.3
5°	2619.8	2624.7	2644.4	2650.5	2628.1
7.5°	2597.1	2604.6	2623.6	2626.4	2604.8
10°	2566.1	2579.4	2592.1	2605.9	2579.7
12.5°	2526.6	2544.5	2566.1	2568.6	2548.7
15°	2482.0	2498.6	2522.1	2537.4	2504.4
17.5°	2432.3	2448.3	2478.7	2481.5	2461.6
20°	2376.7	2396.6	2433.1	2439.5	2403.8
22.5°	2313.6	2340.4	2370.9	2377.0	2350.7
25°	2247.5	2275.2	2312.8	2321.4	2286.2
27.5°	2178.4	2204.9	2247.3	2253.3	2223.7
30°	2104.3	2129.2	2175.6	2185.9	2155.7
32.5°	2029.1	2053.9	2105.4	2114.0	2084.6
35°	1945.5	1976.0	2022.7	2036.8	2003.9
37.5°	1860.4	1889.9	1943.0	1955.8	1920.4
40°	1772.1	1801.5	1853.7	1864.2	1830.2
42.5°	1682.0	1711.3	1767.2	1768.8	1740.6
45°	1589.9	1618.1	1670.1	1671.5	1638.6
47.5°	1496.4	1524.9	1571.4	1566.1	1535.1
50°	1401.8	1428.9	1469.6	1459.1	1431.2
52.5°	1303.9	1330.2	1368.7	1351.5	1325.2
55°	1205.5	1229.8	1261.9	1243.6	1223.2
57.5°	1106.2	1130.8	1155.4	1136.9	1119.2
60°	1006.1	1027.7	1047.9	1029.0	1015.5
62.5°	904.3	922.9	940.3	922.3	909.6
65°	801.4	817.8	832.1	815.5	802.0
67.5°	699.1	712.9	726.2	709.1	695.0
70°	596.8	608.7	620.9	603.2	590.2
72.5°	495.9	506.4	517.2	500.0	488.7
75°	397.7	406.8	415.7	400.4	391.6
77.5°	303.9	311.7	317.8	308.1	299.5
80°	216.8	222.6	226.2	222.3	214.3
82.5°	139.4	143.5	145.5	145.2	139.9
85°	75.8	77.2	80.8	81.6	78.8
87.5°	29.3	31.3	32.1	34.6	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)