

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: P489195

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-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: P489195
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-30-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

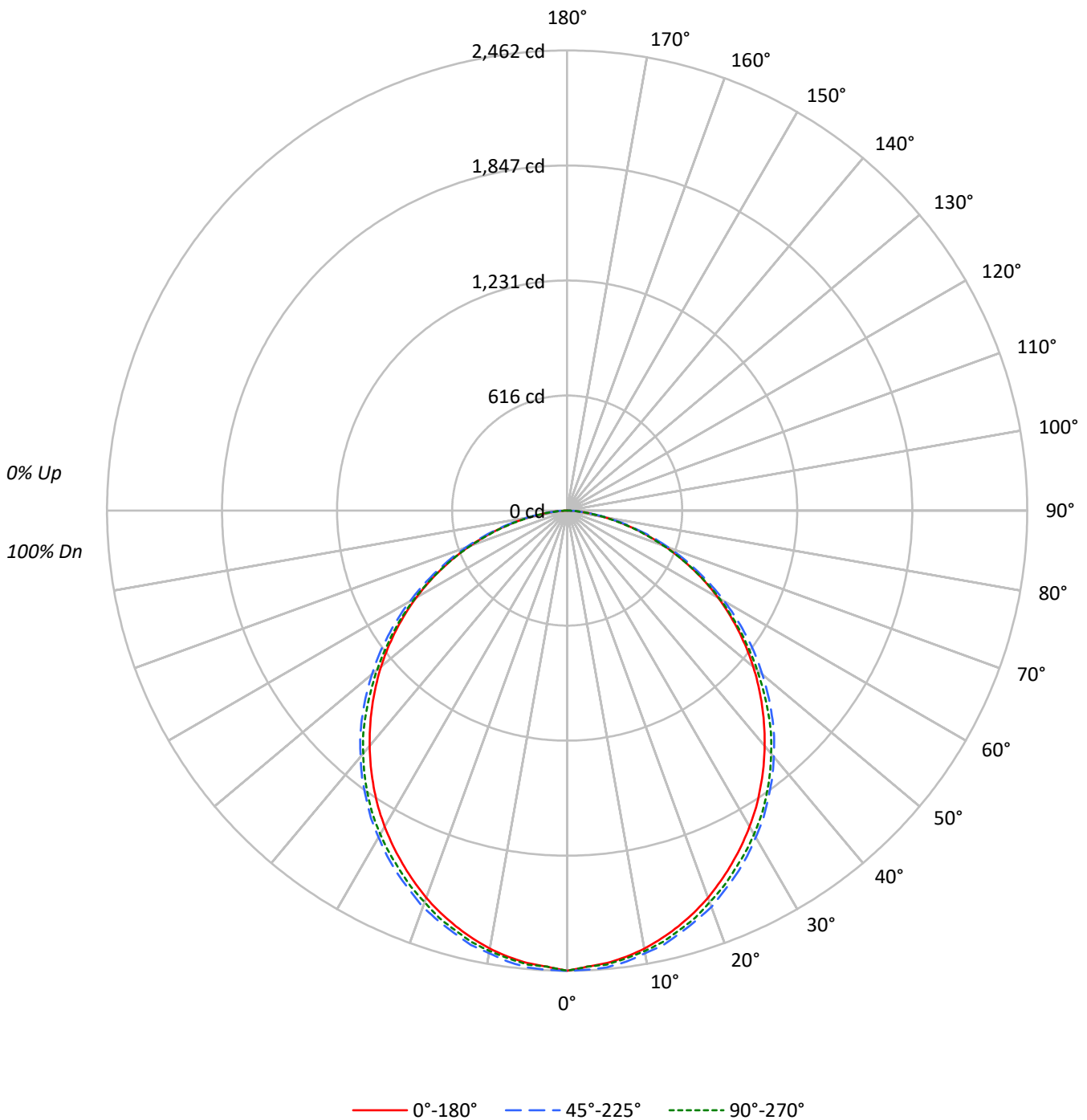
Lumens per Lamp: N/A
Luminaire Lumens: 6473.1 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6625	6625	6625
5°	6564	6626	6585
10°	6504	6570	6539
15°	6414	6518	6472
20°	6313	6463	6385
25°	6190	6370	6297
30°	6065	6271	6213
35°	5929	6163	6106
40°	5774	6040	5964
45°	5613	5896	5784
50°	5444	5707	5557
55°	5246	5491	5323
60°	5022	5231	5070
65°	4734	4915	4737
70°	4356	4531	4307
75°	3836	4009	3776
80°	3116	3251	3081
85°	2171	2313	2257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.9	3.6
10°-20°	657.1	10.2
20°-30°	980.0	15.1
30°-40°	1161.4	17.9
40°-50°	1175.1	18.2
50°-60°	1026.3	15.9
60°-70°	750.0	11.6
70°-80°	399.0	6.2
80°-90°	92.2	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°	1869.0	28.9
0°-40°	3030.4	46.8
0°-60°	5231.8	80.8
0°-90°	6473.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6473.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2462	2462	2462	2462	2462	
5°	2430	2435	2453	2458	2438	230
15°	2302	2318	2340	2354	2323	649
25°	2085	2110	2145	2153	2121	960
35°	1805	1833	1876	1889	1859	1129
45°	1475	1501	1549	1550	1520	1138
55°	1118	1141	1170	1154	1135	1000
65°	743	758	772	756	744	736
75°	369	377	386	371	363	392
85°	70	72	75	76	73	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2462.1	2462.1	2462.1	2462.1	2462.1
2.5°	2442.9	2450.8	2459.1	2462.6	2442.6
5°	2430.1	2434.7	2452.9	2458.5	2437.8
7.5°	2409.0	2416.0	2433.7	2436.2	2416.2
10°	2380.3	2392.6	2404.4	2417.2	2392.9
12.5°	2343.6	2360.3	2380.3	2382.6	2364.1
15°	2302.3	2317.7	2339.5	2353.6	2323.1
17.5°	2256.1	2271.0	2299.2	2301.8	2283.3
20°	2204.6	2223.1	2256.9	2262.8	2229.7
22.5°	2146.1	2171.0	2199.2	2204.8	2180.5
25°	2084.8	2110.4	2145.3	2153.3	2120.7
27.5°	2020.7	2045.3	2084.5	2090.2	2062.7
30°	1951.9	1975.0	2018.1	2027.6	1999.6
32.5°	1882.1	1905.2	1952.9	1960.9	1933.7
35°	1804.7	1832.9	1876.2	1889.3	1858.8
37.5°	1725.7	1753.1	1802.4	1814.2	1781.3
40°	1643.8	1671.0	1719.5	1729.2	1697.7
42.5°	1560.2	1587.4	1639.2	1640.7	1614.6
45°	1474.8	1500.9	1549.2	1550.4	1519.9
47.5°	1388.1	1414.5	1457.6	1452.7	1424.0
50°	1300.3	1325.5	1363.2	1353.4	1327.5
52.5°	1209.5	1233.9	1269.5	1253.6	1229.3
55°	1118.2	1140.8	1170.5	1153.6	1134.6
57.5°	1026.1	1048.9	1071.8	1054.6	1038.2
60°	933.2	953.3	972.0	954.5	942.0
62.5°	838.8	856.0	872.2	855.5	843.7
65°	743.4	758.5	771.9	756.5	743.9
67.5°	648.5	661.3	673.6	657.7	644.6
70°	553.6	564.6	575.9	559.5	547.4
72.5°	460.0	469.7	479.7	463.8	453.3
75°	368.9	377.3	385.6	371.4	363.2
77.5°	281.9	289.1	294.7	285.8	277.8
80°	201.1	206.5	209.8	206.2	198.8
82.5°	129.3	133.1	134.9	134.7	129.8
85°	70.3	71.6	74.9	75.7	73.1
87.5°	27.2	29.0	29.8	32.1	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)