

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: P489112

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3HI-35-120-EDD-90**

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: P489112
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-LD4-3HI-35-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

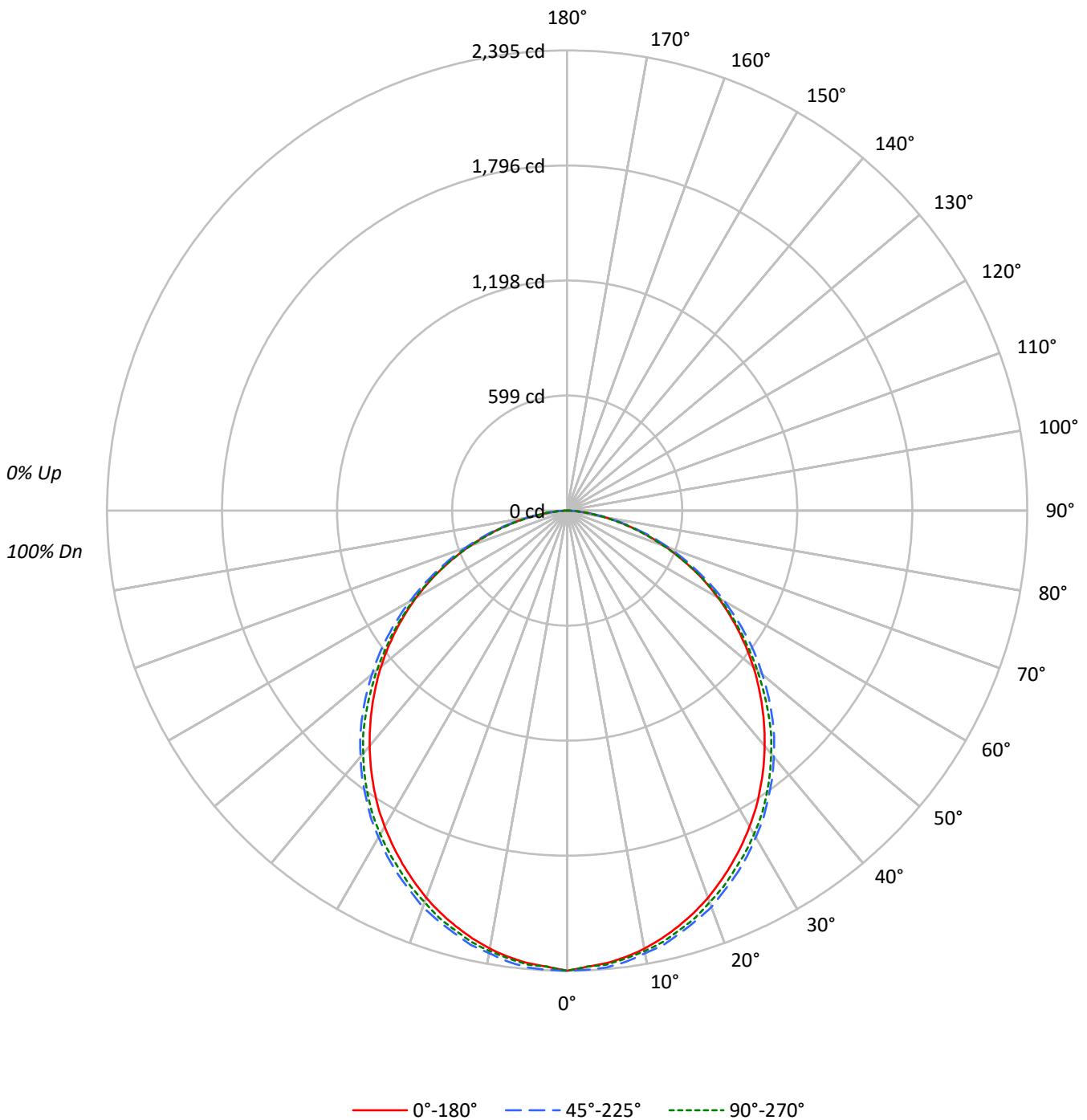
Lumens per Lamp: N/A
Luminaire Lumens: 6297.1 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	6445	6445	6445
5°	6386	6446	6406
10°	6327	6391	6361
15°	6240	6340	6296
20°	6141	6287	6212
25°	6022	6197	6125
30°	5900	6100	6045
35°	5767	5996	5940
40°	5617	5876	5801
45°	5460	5735	5627
50°	5296	5552	5406
55°	5103	5342	5179
60°	4886	5089	4932
65°	4605	4781	4608
70°	4237	4408	4190
75°	3732	3900	3674
80°	3031	3163	2997
85°	2112	2251	2195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.6	3.6
10°-20°	639.2	10.2
20°-30°	953.4	15.1
30°-40°	1129.8	17.9
40°-50°	1143.2	18.2
50°-60°	998.4	15.9
60°-70°	729.6	11.6
70°-80°	388.2	6.2
80°-90°	89.7	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°	1818.2	28.9
0°-40°	2948.0	46.8
0°-60°	5089.6	80.8
0°-90°	6297.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6297.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2395	2395	2395	2395	2395	
5°	2364	2368	2386	2392	2372	224
15°	2240	2255	2276	2290	2260	631
25°	2028	2053	2087	2095	2063	934
35°	1756	1783	1825	1838	1808	1098
45°	1435	1460	1507	1508	1479	1107
55°	1088	1110	1139	1122	1104	972
65°	723	738	751	736	724	716
75°	359	367	375	361	353	382
85°	68	70	73	74	71	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2395.2	2395.2	2395.2	2395.2	2395.2
2.5°	2376.5	2384.2	2392.2	2395.7	2376.2
5°	2364.0	2368.5	2386.2	2391.7	2371.5
7.5°	2343.5	2350.3	2367.5	2370.0	2350.5
10°	2315.6	2327.6	2339.0	2351.5	2327.8
12.5°	2279.9	2296.1	2315.6	2317.8	2299.9
15°	2239.7	2254.7	2275.9	2289.6	2259.9
17.5°	2194.8	2209.3	2236.7	2239.2	2221.3
20°	2144.6	2162.6	2195.6	2201.3	2169.1
22.5°	2087.7	2112.0	2139.4	2144.9	2121.2
25°	2028.1	2053.1	2087.0	2094.7	2063.0
27.5°	1965.7	1989.7	2027.9	2033.3	2006.6
30°	1898.8	1921.3	1963.2	1972.5	1945.3
32.5°	1831.0	1853.4	1899.8	1907.6	1881.1
35°	1755.6	1783.0	1825.2	1837.9	1808.2
37.5°	1678.7	1705.4	1753.3	1764.8	1732.9
40°	1599.1	1625.6	1672.7	1682.2	1651.5
42.5°	1517.8	1544.2	1594.6	1596.1	1570.7
45°	1434.7	1460.1	1507.0	1508.3	1478.6
47.5°	1350.3	1376.0	1418.0	1413.2	1385.3
50°	1265.0	1289.4	1326.1	1316.6	1291.4
52.5°	1176.6	1200.3	1235.0	1219.6	1195.8
55°	1087.8	1109.8	1138.7	1122.2	1103.8
57.5°	998.2	1020.4	1042.6	1025.9	1009.9
60°	907.9	927.3	945.5	928.6	916.4
62.5°	816.0	832.8	848.5	832.3	820.8
65°	723.2	737.9	750.9	735.9	723.7
67.5°	630.9	643.3	655.3	639.8	627.1
70°	538.5	549.3	560.2	544.3	532.5
72.5°	447.4	456.9	466.7	451.2	441.0
75°	358.9	367.1	375.1	361.4	353.4
77.5°	274.3	281.2	286.7	278.0	270.3
80°	195.6	200.9	204.1	200.6	193.4
82.5°	125.8	129.5	131.3	131.0	126.3
85°	68.4	69.6	72.9	73.6	71.1
87.5°	26.5	28.2	28.9	31.2	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)