

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: P489197

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5LO-35-120-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: P489197
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-35-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

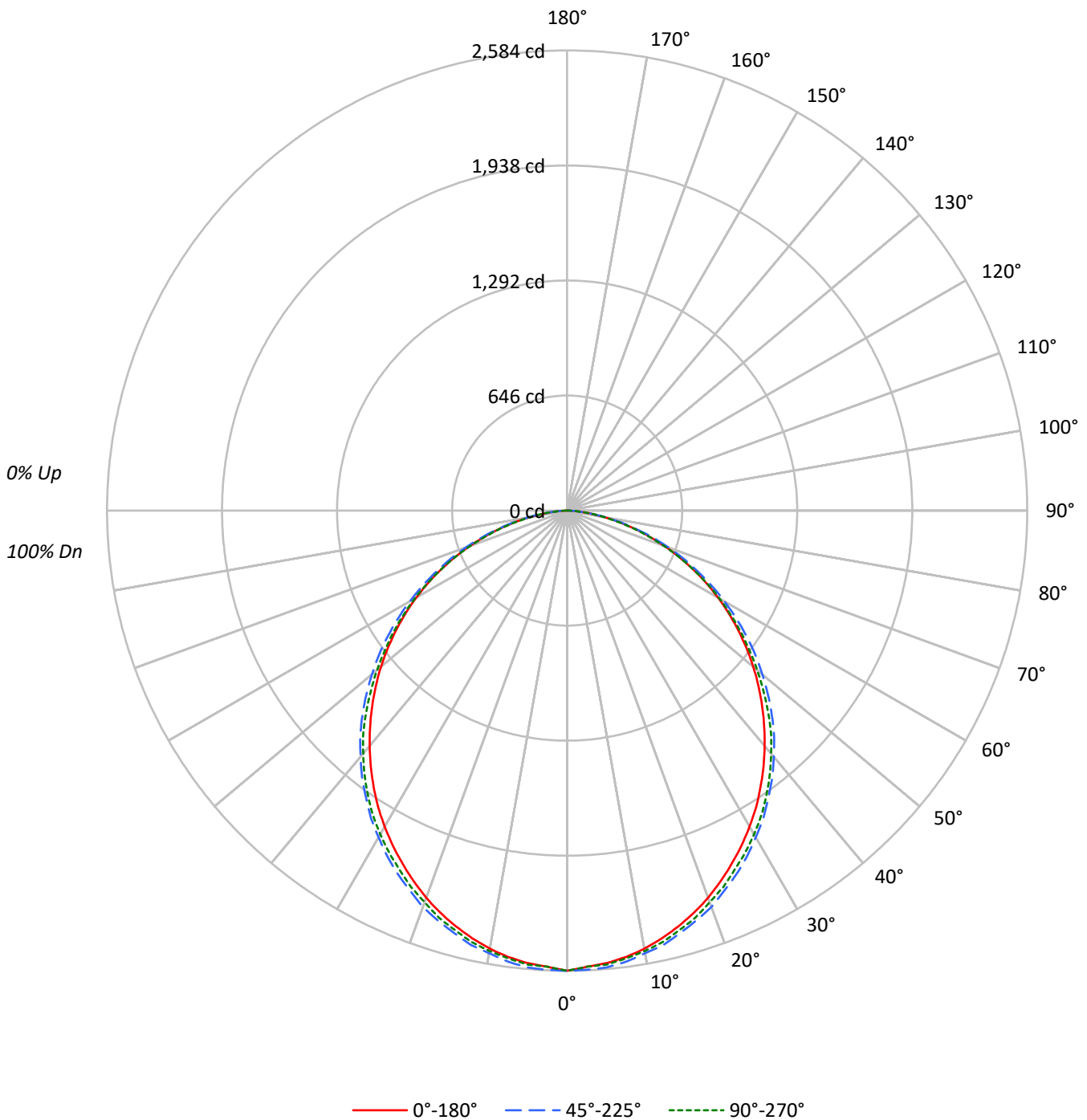
Lumens per Lamp: N/A
Luminaire Lumens: 6794.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6954	6954	6954
5°	6890	6954	6911
10°	6827	6896	6863
15°	6732	6841	6793
20°	6626	6783	6702
25°	6497	6686	6609
30°	6366	6582	6522
35°	6222	6469	6409
40°	6061	6340	6259
45°	5891	6188	6071
50°	5714	5990	5833
55°	5506	5764	5587
60°	5272	5491	5321
65°	4968	5159	4972
70°	4571	4756	4521
75°	4026	4208	3963
80°	3271	3412	3234
85°	2279	2427	2368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	3.6
10°-20°	689.7	10.2
20°-30°	1028.6	15.1
30°-40°	1218.9	17.9
40°-50°	1233.4	18.2
50°-60°	1077.2	15.9
60°-70°	787.2	11.6
70°-80°	418.8	6.2
80°-90°	96.8	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°	1961.7	28.9
0°-40°	3180.6	46.8
0°-60°	5491.2	80.8
0°-90°	6794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2584	2584	2584	2584	2584	
5°	2550	2555	2574	2580	2559	242
15°	2416	2433	2456	2470	2438	681
25°	2188	2215	2252	2260	2226	1008
35°	1894	1924	1969	1983	1951	1185
45°	1548	1575	1626	1627	1595	1194
55°	1174	1197	1229	1211	1191	1049
65°	780	796	810	794	781	772
75°	387	396	405	390	381	412
85°	74	75	79	79	77	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2584.2	2584.2	2584.2	2584.2	2584.2
2.5°	2564.0	2572.3	2581.0	2584.7	2563.7
5°	2550.5	2555.4	2574.5	2580.4	2558.6
7.5°	2528.5	2535.7	2554.3	2557.0	2536.0
10°	2498.3	2511.2	2523.6	2537.1	2511.5
12.5°	2459.8	2477.3	2498.3	2500.7	2481.3
15°	2416.5	2432.6	2455.5	2470.3	2438.3
17.5°	2368.0	2383.6	2413.2	2415.9	2396.5
20°	2313.9	2333.3	2368.8	2375.0	2340.3
22.5°	2252.5	2278.6	2308.2	2314.1	2288.6
25°	2188.1	2215.1	2251.7	2260.0	2225.8
27.5°	2120.8	2146.7	2187.9	2193.8	2165.0
30°	2048.7	2072.9	2118.1	2128.1	2098.8
32.5°	1975.4	1999.7	2049.7	2058.1	2029.6
35°	1894.1	1923.7	1969.2	1983.0	1950.9
37.5°	1811.2	1840.0	1891.7	1904.1	1869.6
40°	1725.3	1753.8	1804.7	1815.0	1781.9
42.5°	1637.5	1666.1	1720.5	1722.1	1694.6
45°	1547.9	1575.3	1626.0	1627.3	1595.3
47.5°	1456.9	1484.6	1529.8	1524.7	1494.6
50°	1364.8	1391.2	1430.8	1420.5	1393.3
52.5°	1269.5	1295.1	1332.5	1315.8	1290.2
55°	1173.6	1197.3	1228.6	1210.8	1190.9
57.5°	1077.0	1100.9	1124.9	1106.9	1089.6
60°	979.5	1000.5	1020.2	1001.9	988.7
62.5°	880.4	898.5	915.4	897.9	885.5
65°	780.3	796.2	810.2	794.0	780.8
67.5°	680.6	694.1	707.0	690.3	676.6
70°	581.0	592.6	604.5	587.2	574.6
72.5°	482.8	493.0	503.5	486.8	475.8
75°	387.2	396.1	404.7	389.9	381.2
77.5°	295.9	303.4	309.4	299.9	291.6
80°	211.1	216.7	220.2	216.5	208.7
82.5°	135.7	139.7	141.6	141.4	136.2
85°	73.8	75.1	78.6	79.4	76.7
87.5°	28.5	30.4	31.2	33.7	31.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)