

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: P489203

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5STD-20-120-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: P489203
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-LD4-5STD-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

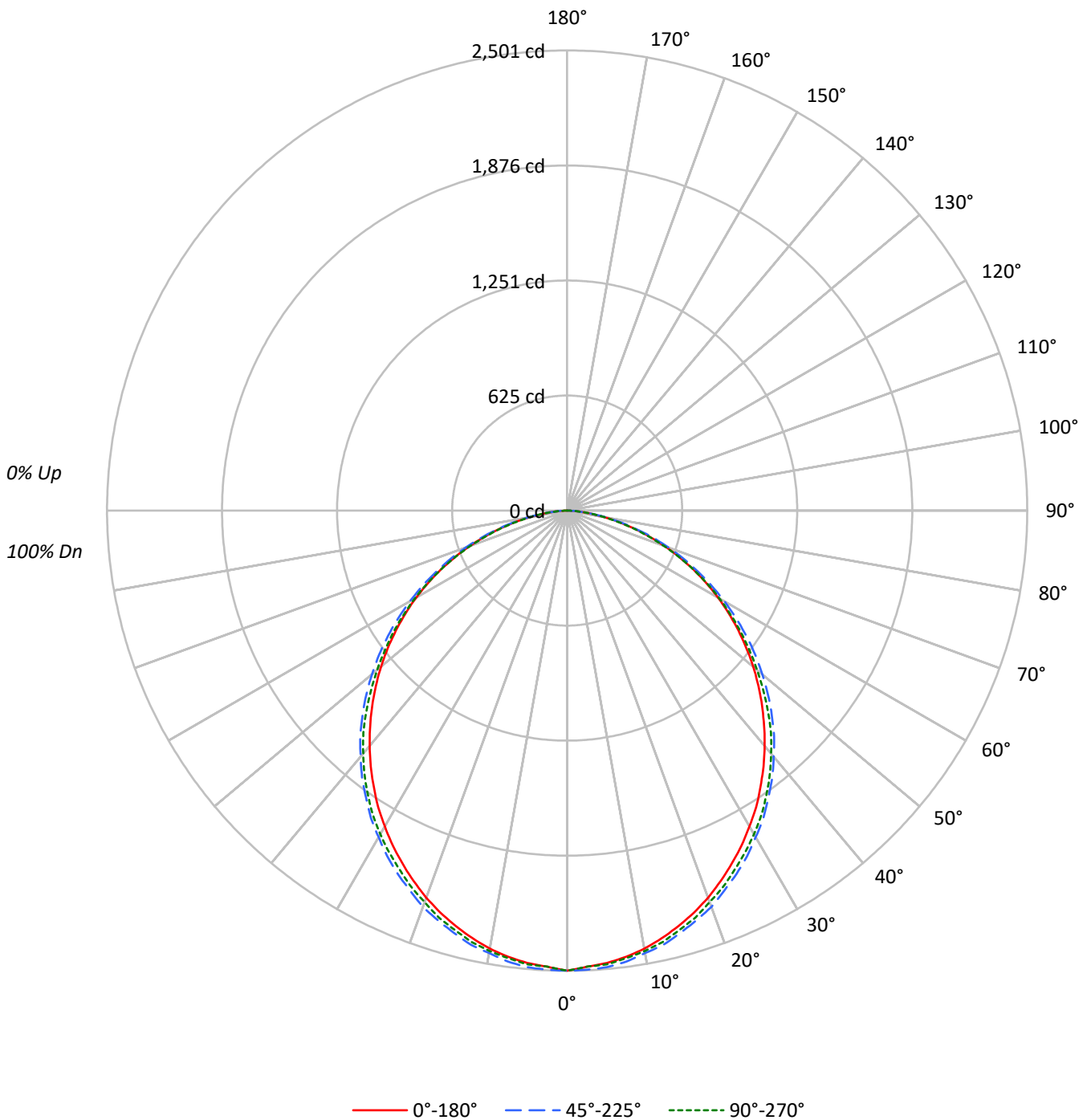
Lumens per Lamp: N/A
Luminaire Lumens: 6574.5 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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°	6729	6729	6729
5°	6667	6730	6688
10°	6606	6673	6641
15°	6515	6620	6573
20°	6412	6564	6485
25°	6287	6470	6395
30°	6160	6369	6311
35°	6021	6260	6202
40°	5865	6135	6057
45°	5700	5988	5875
50°	5529	5796	5645
55°	5328	5578	5407
60°	5102	5313	5149
65°	4808	4992	4811
70°	4424	4602	4375
75°	3896	4072	3836
80°	3166	3302	3129
85°	2205	2350	2294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.5	3.6
10°-20°	667.4	10.2
20°-30°	995.4	15.1
30°-40°	1179.6	17.9
40°-50°	1193.5	18.2
50°-60°	1042.4	15.9
60°-70°	761.7	11.6
70°-80°	405.3	6.2
80°-90°	93.7	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°	1898.3	28.9
0°-40°	3077.9	46.8
0°-60°	5313.8	80.8
0°-90°	6574.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6574.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2501	2501	2501	2501	2501	
5°	2468	2473	2491	2497	2476	234
15°	2338	2354	2376	2390	2360	659
25°	2117	2144	2179	2187	2154	976
35°	1833	1862	1906	1919	1888	1146
45°	1498	1524	1573	1575	1544	1156
55°	1136	1159	1189	1172	1152	1015
65°	755	770	784	768	756	747
75°	375	383	392	377	369	398
85°	71	73	76	77	74	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2500.7	2500.7	2500.7	2500.7	2500.7
2.5°	2481.2	2489.2	2497.6	2501.2	2480.9
5°	2468.1	2472.8	2491.3	2497.1	2476.0
7.5°	2446.8	2453.8	2471.8	2474.4	2454.1
10°	2417.6	2430.1	2442.1	2455.1	2430.4
12.5°	2380.3	2397.3	2417.6	2419.9	2401.2
15°	2338.4	2354.0	2376.2	2390.5	2359.5
17.5°	2291.5	2306.6	2335.3	2337.9	2319.1
20°	2239.1	2257.9	2292.3	2298.3	2264.7
22.5°	2179.7	2205.0	2233.6	2239.4	2214.6
25°	2117.4	2143.5	2178.9	2187.0	2153.9
27.5°	2052.3	2077.3	2117.2	2122.9	2095.0
30°	1982.5	2005.9	2049.7	2059.3	2030.9
32.5°	1911.6	1935.1	1983.5	1991.6	1964.0
35°	1832.9	1861.6	1905.6	1918.9	1887.9
37.5°	1752.7	1780.6	1830.6	1842.6	1809.2
40°	1669.6	1697.2	1746.4	1756.3	1724.3
42.5°	1584.6	1612.2	1664.9	1666.4	1639.9
45°	1497.9	1524.4	1573.4	1574.7	1543.7
47.5°	1409.8	1436.6	1480.4	1475.5	1446.3
50°	1320.7	1346.2	1384.5	1374.6	1348.3
52.5°	1228.5	1253.2	1289.4	1273.3	1248.5
55°	1135.7	1158.6	1188.9	1171.7	1152.4
57.5°	1042.2	1065.4	1088.6	1071.1	1054.4
60°	947.9	968.2	987.2	969.5	956.7
62.5°	852.0	869.4	885.9	868.9	856.9
65°	755.1	770.4	784.0	768.3	755.6
67.5°	658.7	671.7	684.2	668.0	654.7
70°	562.3	573.5	584.9	568.2	556.0
72.5°	467.2	477.1	487.2	471.1	460.4
75°	374.7	383.3	391.6	377.3	368.9
77.5°	286.3	293.6	299.4	290.2	282.2
80°	204.3	209.7	213.1	209.5	201.9
82.5°	131.3	135.2	137.0	136.8	131.8
85°	71.4	72.7	76.1	76.9	74.3
87.5°	27.6	29.4	30.2	32.6	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)