

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: P489170

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-30-120-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: P489170
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-LD4-4STD-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

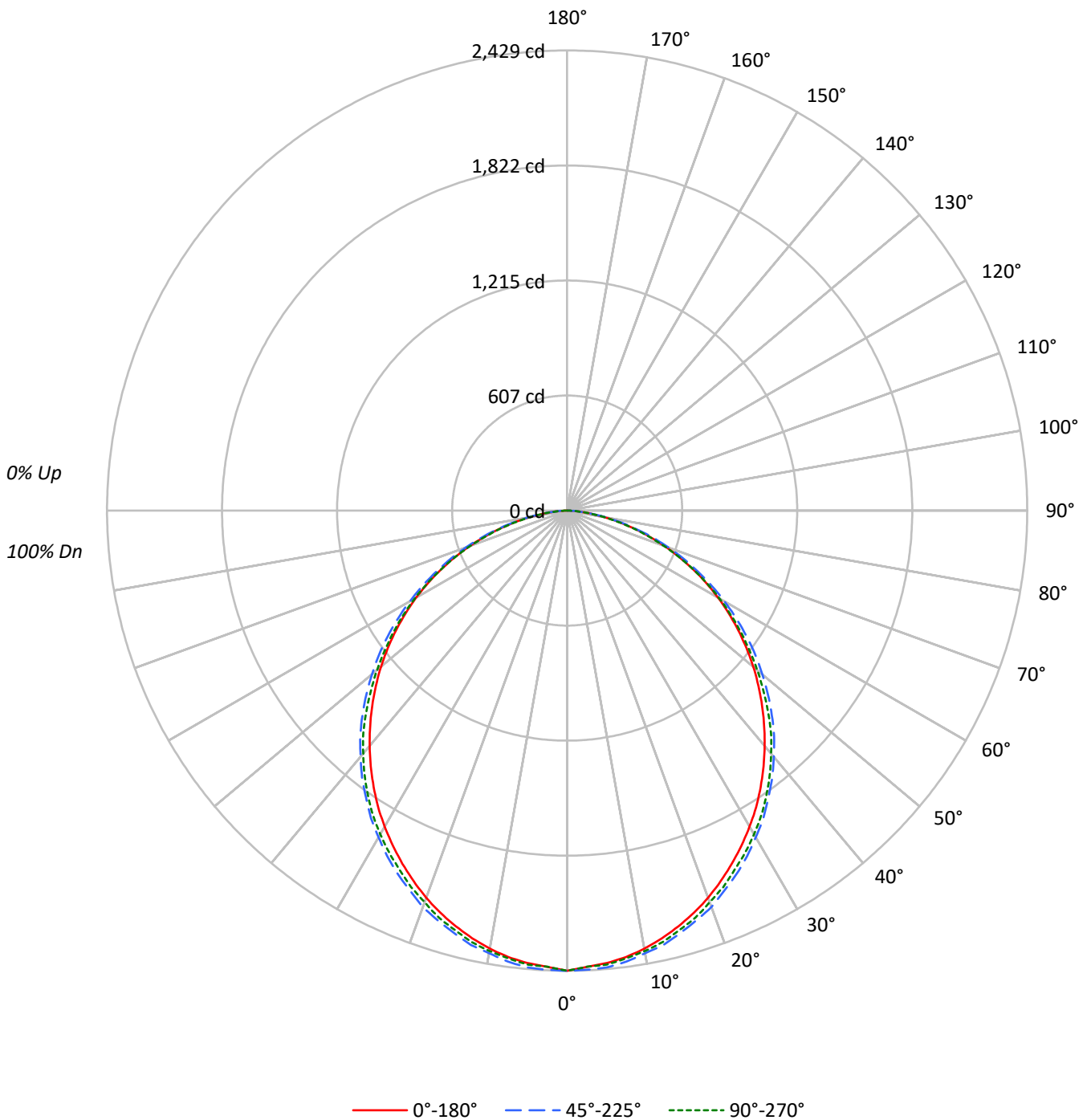
Lumens per Lamp: N/A
Luminaire Lumens: 6386.7 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6537	6537	6537
5°	6477	6538	6497
10°	6417	6482	6451
15°	6328	6431	6386
20°	6229	6377	6300
25°	6108	6285	6213
30°	5984	6187	6130
35°	5849	6081	6025
40°	5697	5960	5884
45°	5538	5817	5707
50°	5371	5631	5483
55°	5176	5418	5252
60°	4956	5161	5002
65°	4670	4849	4674
70°	4297	4471	4249
75°	3785	3955	3726
80°	3075	3208	3040
85°	2140	2282	2226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.8	3.6
10°-20°	648.3	10.2
20°-30°	967.0	15.1
30°-40°	1145.9	17.9
40°-50°	1159.4	18.2
50°-60°	1012.6	15.9
60°-70°	740.0	11.6
70°-80°	393.7	6.2
80°-90°	91.0	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°	1844.1	28.9
0°-40°	2990.0	46.8
0°-60°	5162.0	80.8
0°-90°	6386.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6386.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2429	2429	2429	2429	2429	
5°	2398	2402	2420	2426	2405	227
15°	2272	2287	2308	2322	2292	640
25°	2057	2082	2117	2124	2092	948
35°	1781	1808	1851	1864	1834	1114
45°	1455	1481	1528	1530	1500	1123
55°	1103	1126	1155	1138	1120	986
65°	734	748	762	746	734	726
75°	364	372	380	366	358	387
85°	69	71	74	75	72	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2429.3	2429.3	2429.3	2429.3	2429.3
2.5°	2410.3	2418.1	2426.2	2429.8	2410.0
5°	2397.6	2402.2	2420.2	2425.7	2405.2
7.5°	2376.9	2383.7	2401.2	2403.7	2384.0
10°	2348.5	2360.7	2372.3	2385.0	2360.9
12.5°	2312.3	2328.8	2348.5	2350.8	2332.6
15°	2271.6	2286.8	2308.3	2322.2	2292.1
17.5°	2226.0	2240.7	2268.6	2271.1	2252.9
20°	2175.2	2193.4	2226.8	2232.6	2200.0
22.5°	2117.5	2142.0	2169.8	2175.4	2151.4
25°	2057.0	2082.3	2116.7	2124.5	2092.4
27.5°	1993.7	2018.0	2056.7	2062.3	2035.2
30°	1925.9	1948.6	1991.2	2000.5	1972.9
32.5°	1857.0	1879.8	1926.9	1934.7	1907.9
35°	1780.6	1808.4	1851.2	1864.1	1834.0
37.5°	1702.6	1729.7	1778.3	1789.9	1757.5
40°	1621.9	1648.7	1696.5	1706.2	1675.0
42.5°	1539.4	1566.2	1617.3	1618.8	1593.0
45°	1455.1	1480.9	1528.5	1529.7	1499.6
47.5°	1369.5	1395.6	1438.1	1433.3	1405.0
50°	1283.0	1307.8	1345.0	1335.4	1309.8
52.5°	1193.4	1217.4	1252.6	1236.9	1212.9
55°	1103.3	1125.5	1154.9	1138.2	1119.5
57.5°	1012.4	1034.9	1057.5	1040.5	1024.3
60°	920.8	940.5	959.0	941.8	929.4
62.5°	827.6	844.6	860.5	844.1	832.5
65°	733.5	748.4	761.6	746.4	734.0
67.5°	639.8	652.5	664.6	649.0	636.0
70°	546.2	557.1	568.2	552.0	540.1
72.5°	453.8	463.4	473.3	457.6	447.2
75°	364.0	372.3	380.4	366.5	358.4
77.5°	278.2	285.2	290.8	282.0	274.1
80°	198.4	203.7	207.0	203.5	196.2
82.5°	127.6	131.4	133.1	132.9	128.1
85°	69.3	70.6	73.9	74.7	72.1
87.5°	26.8	28.6	29.4	31.6	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)