

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: P489178

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5HI-20-120-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: P489178
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-LD4-5HI-20-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

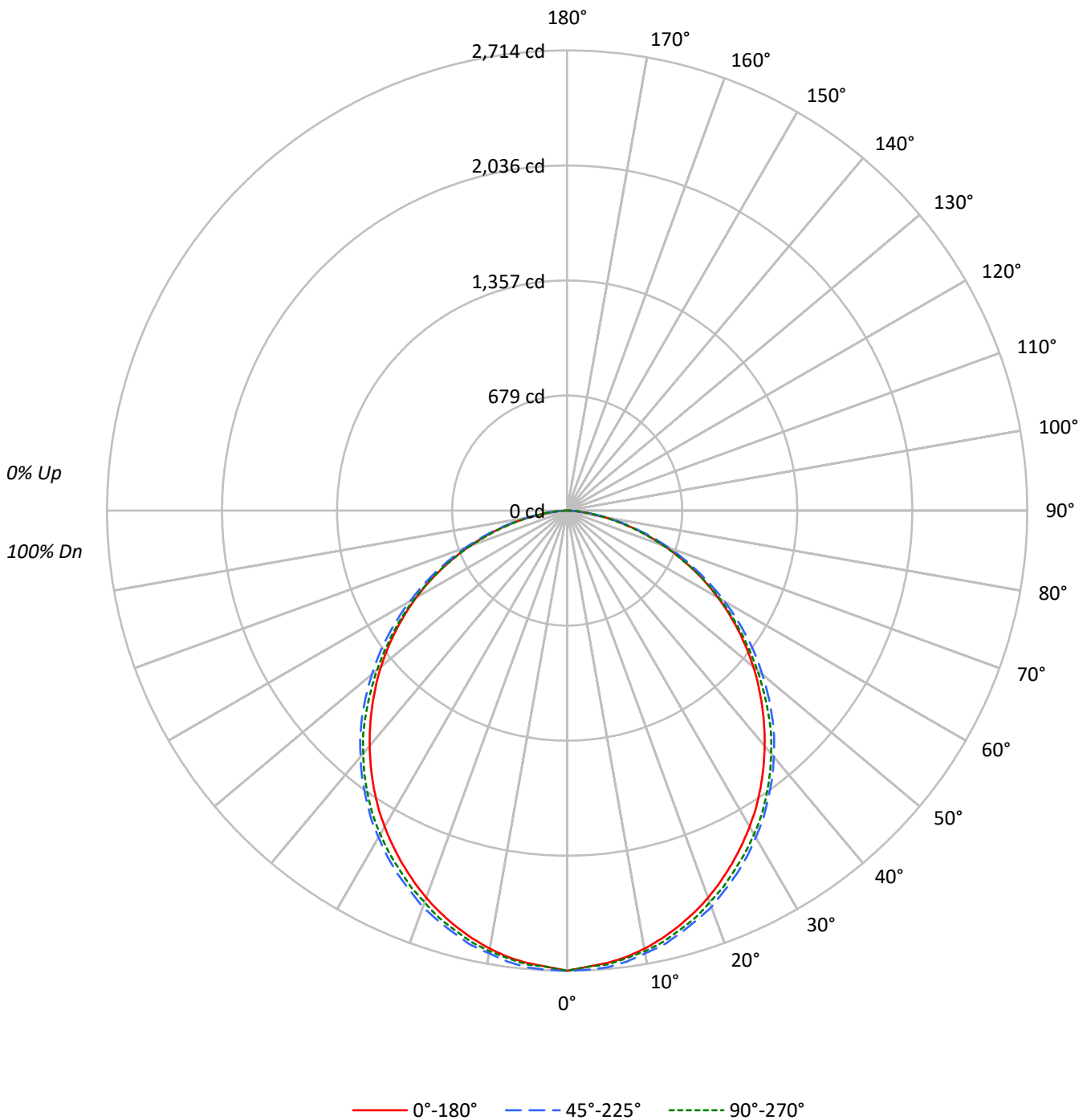
Lumens per Lamp: N/A
Luminaire Lumens: 7136.7 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 108
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°	7305	7305	7305
5°	7237	7305	7260
10°	7171	7244	7209
15°	7071	7186	7136
20°	6960	7126	7040
25°	6825	7023	6942
30°	6687	6914	6850
35°	6536	6796	6732
40°	6366	6660	6575
45°	6188	6500	6377
50°	6002	6292	6127
55°	5784	6054	5869
60°	5537	5767	5589
65°	5219	5419	5223
70°	4802	4995	4748
75°	4229	4420	4164
80°	3436	3586	3397
85°	2393	2550	2489



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.7	3.6
10°-20°	724.5	10.2
20°-30°	1080.5	15.1
30°-40°	1280.4	17.9
40°-50°	1295.6	18.2
50°-60°	1131.5	15.9
60°-70°	826.9	11.6
70°-80°	440.0	6.2
80°-90°	101.7	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°	2060.7	28.9
0°-40°	3341.1	46.8
0°-60°	5768.2	80.8
0°-90°	7136.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7136.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2714	2714	2714	2714	2714	
5°	2679	2684	2704	2711	2688	254
15°	2538	2555	2579	2595	2561	716
25°	2298	2327	2365	2374	2338	1059
35°	1990	2021	2069	2083	2049	1244
45°	1626	1655	1708	1709	1676	1254
55°	1233	1258	1290	1272	1251	1102
65°	820	836	851	834	820	811
75°	407	416	425	410	400	432
85°	78	79	83	83	81	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2714.5	2714.5	2714.5	2714.5	2714.5
2.5°	2693.3	2702.1	2711.2	2715.1	2693.1
5°	2679.2	2684.3	2704.4	2710.6	2687.7
7.5°	2656.0	2663.6	2683.2	2686.0	2663.9
10°	2624.3	2637.9	2650.9	2665.1	2638.2
12.5°	2583.9	2602.3	2624.3	2626.9	2606.5
15°	2538.3	2555.3	2579.4	2594.9	2561.3
17.5°	2487.4	2503.8	2535.0	2537.8	2517.4
20°	2430.6	2451.0	2488.3	2494.8	2458.3
22.5°	2366.1	2393.5	2424.7	2430.9	2404.0
25°	2298.5	2326.8	2365.3	2374.0	2338.1
27.5°	2227.8	2255.0	2298.2	2304.5	2274.2
30°	2152.0	2177.5	2225.0	2235.4	2204.6
32.5°	2075.1	2100.5	2153.1	2161.9	2131.9
35°	1989.7	2020.8	2068.6	2083.0	2049.3
37.5°	1902.6	1932.8	1987.1	2000.1	1963.9
40°	1812.3	1842.3	1895.8	1906.5	1871.7
42.5°	1720.1	1750.1	1807.2	1808.9	1780.1
45°	1626.0	1654.8	1708.0	1709.4	1675.7
47.5°	1530.4	1559.5	1607.0	1601.6	1570.0
50°	1433.6	1461.4	1502.9	1492.2	1463.6
52.5°	1333.5	1360.4	1399.7	1382.2	1355.3
55°	1232.8	1257.7	1290.5	1271.9	1250.9
57.5°	1131.3	1156.5	1181.6	1162.7	1144.6
60°	1028.9	1051.0	1071.6	1052.4	1038.5
62.5°	924.8	943.8	961.6	943.2	930.2
65°	819.6	836.3	851.0	834.0	820.2
67.5°	715.0	729.1	742.7	725.2	710.7
70°	610.3	622.5	634.9	616.8	603.5
72.5°	507.1	517.9	528.9	511.3	499.8
75°	406.7	416.0	425.1	409.5	400.5
77.5°	310.8	318.7	325.0	315.1	306.3
80°	221.7	227.7	231.4	227.4	219.2
82.5°	142.5	146.8	148.8	148.5	143.1
85°	77.5	78.9	82.6	83.4	80.6
87.5°	30.0	32.0	32.8	35.4	32.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)