

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: P489176

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-50-120-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: P489176  
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-50-120-EDD-90  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

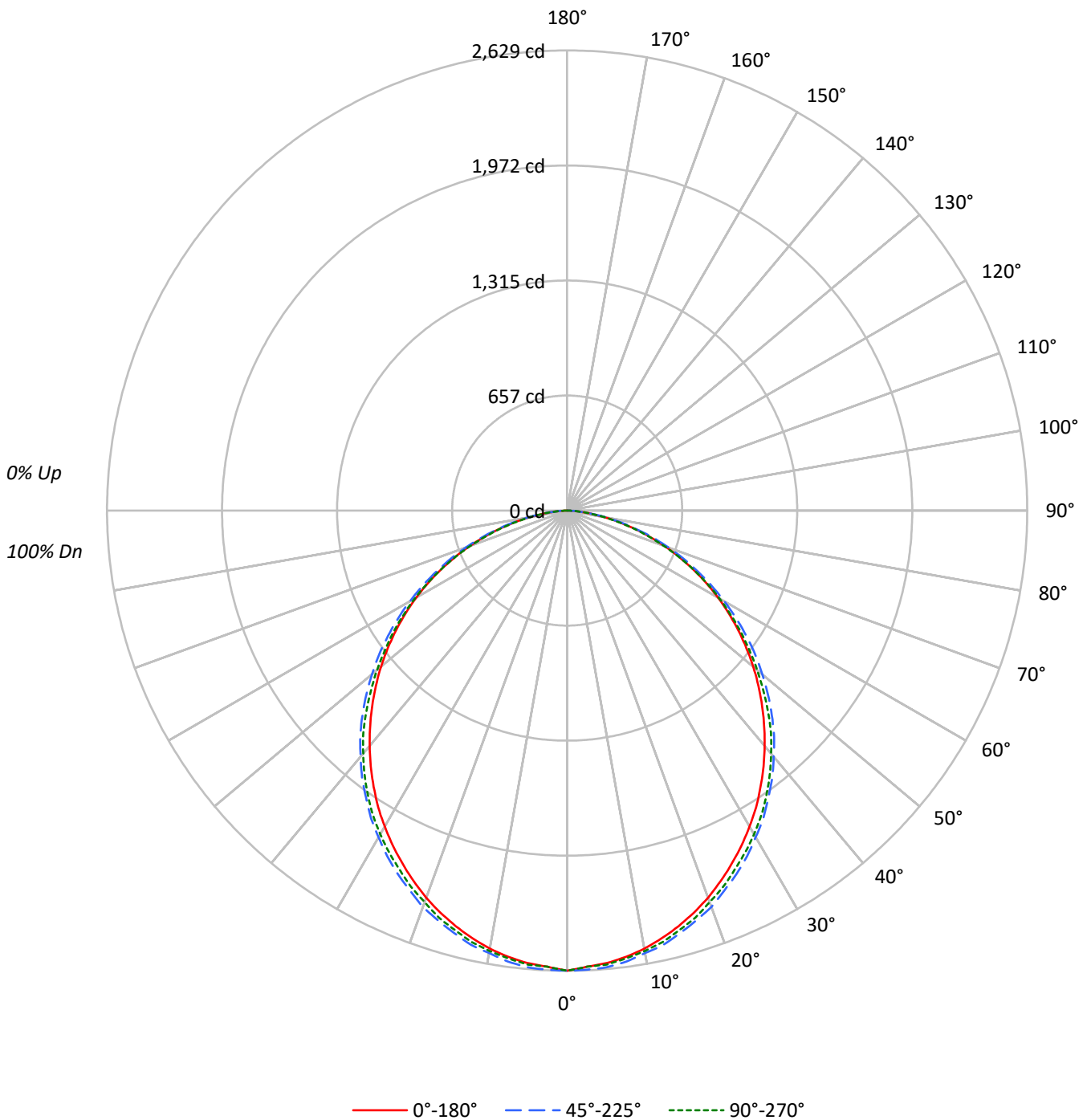
Lumens per Lamp: N/A  
Luminaire Lumens: 6911.8 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	7075	7075	7075
5°	7009	7075	7031
10°	6945	7015	6982
15°	6849	6959	6910
20°	6741	6901	6818
25°	6610	6801	6723
30°	6476	6696	6634
35°	6330	6581	6520
40°	6166	6450	6368
45°	5993	6295	6176
50°	5813	6094	5934
55°	5602	5864	5684
60°	5363	5586	5413
65°	5054	5248	5058
70°	4651	4838	4599
75°	4095	4281	4033
80°	3327	3473	3290
85°	2319	2470	2411



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.6	3.6
10°-20°	701.6	10.2
20°-30°	1046.5	15.1
30°-40°	1240.1	17.9
40°-50°	1254.8	18.2
50°-60°	1095.9	15.9
60°-70°	800.8	11.6
70°-80°	426.1	6.2
80°-90°	98.5	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°	1995.7	28.9
0°-40°	3235.8	46.8
0°-60°	5586.4	80.8
0°-90°	6911.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6911.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2629	2629	2629	2629	2629	
5°	2595	2600	2619	2625	2603	246
15°	2458	2475	2498	2513	2480	693
25°	2226	2254	2291	2299	2264	1026
35°	1927	1957	2003	2017	1985	1205
45°	1575	1603	1654	1656	1623	1215
55°	1194	1218	1250	1232	1212	1067
65°	794	810	824	808	794	786
75°	394	403	412	397	388	419
85°	75	76	80	81	78	95
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2629.0	2629.0	2629.0	2629.0	2629.0
2.5°	2608.5	2617.0	2625.7	2629.6	2608.2
5°	2594.8	2599.7	2619.1	2625.2	2603.0
7.5°	2572.3	2579.7	2598.6	2601.3	2580.0
10°	2541.6	2554.8	2567.4	2581.1	2555.0
12.5°	2502.5	2520.3	2541.6	2544.1	2524.4
15°	2458.4	2474.8	2498.1	2513.1	2480.5
17.5°	2409.1	2424.9	2455.1	2457.8	2438.1
20°	2354.0	2373.7	2409.9	2416.2	2380.8
22.5°	2291.5	2318.1	2348.2	2354.3	2328.2
25°	2226.1	2253.5	2290.7	2299.2	2264.4
27.5°	2157.6	2183.9	2225.8	2231.8	2202.5
30°	2084.2	2108.8	2154.9	2165.0	2135.1
32.5°	2009.7	2034.3	2085.3	2093.8	2064.7
35°	1927.0	1957.1	2003.4	2017.4	1984.8
37.5°	1842.6	1871.9	1924.5	1937.1	1902.0
40°	1755.2	1784.3	1836.0	1846.4	1812.7
42.5°	1665.9	1695.0	1750.3	1751.9	1724.0
45°	1574.7	1602.7	1654.2	1655.5	1622.9
47.5°	1482.1	1510.3	1556.4	1551.2	1520.5
50°	1388.5	1415.3	1455.6	1445.2	1417.5
52.5°	1291.5	1317.5	1355.6	1338.6	1312.6
55°	1194.0	1218.1	1249.9	1231.8	1211.5
57.5°	1095.6	1120.0	1144.4	1126.1	1108.5
60°	996.5	1017.9	1037.9	1019.2	1005.8
62.5°	895.7	914.0	931.3	913.5	900.9
65°	793.8	810.0	824.2	807.8	794.3
67.5°	692.4	706.1	719.3	702.3	688.3
70°	591.1	602.9	614.9	597.4	584.5
72.5°	491.1	501.5	512.2	495.2	484.0
75°	393.9	402.9	411.7	396.6	387.9
77.5°	301.0	308.7	314.7	305.1	296.6
80°	214.7	220.5	224.1	220.2	212.3
82.5°	138.1	142.2	144.1	143.8	138.6
85°	75.1	76.4	80.0	80.8	78.1
87.5°	29.0	31.0	31.8	34.2	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)