

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: P489113

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3HI-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: P489113  
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-LD4-3HI-35-120-EDD  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

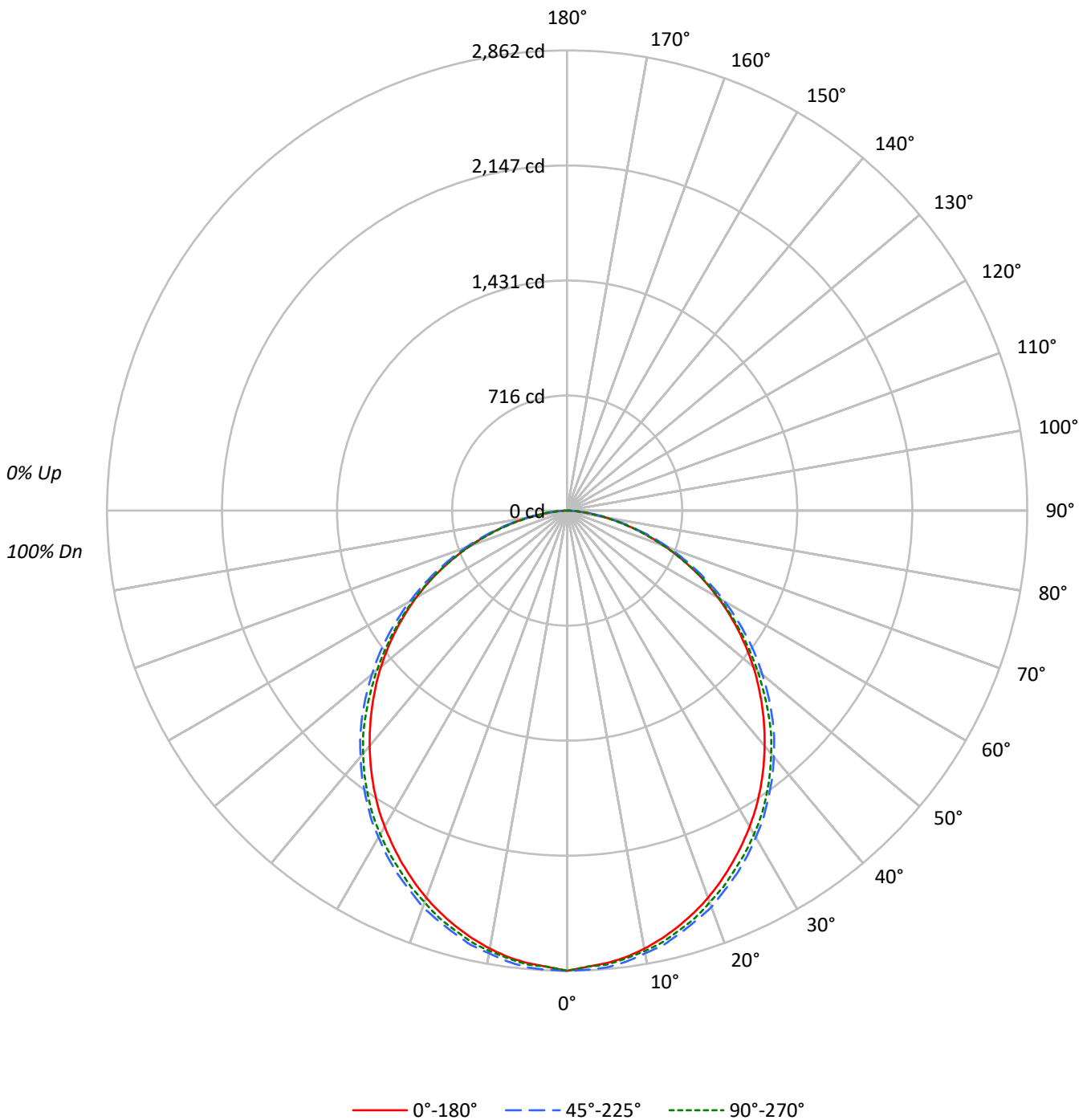
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7525.7 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): 64.8  
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°	7703	7703	7703
5°	7632	7703	7656
10°	7562	7638	7602
15°	7457	7577	7524
20°	7340	7514	7424
25°	7197	7406	7321
30°	7051	7291	7224
35°	6892	7166	7099
40°	6713	7022	6934
45°	6525	6854	6725
50°	6329	6635	6461
55°	6099	6385	6189
60°	5839	6082	5894
65°	5503	5714	5507
70°	5064	5268	5007
75°	4459	4661	4391
80°	3623	3781	3581
85°	2523	2689	2624



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.6	3.6
10°-20°	764.0	10.2
20°-30°	1139.4	15.1
30°-40°	1350.2	17.9
40°-50°	1366.2	18.2
50°-60°	1193.2	15.9
60°-70°	871.9	11.6
70°-80°	463.9	6.2
80°-90°	107.2	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°	2173.0	28.9
0°-40°	3523.2	46.8
0°-60°	6082.6	80.8
0°-90°	7525.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7525.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2862	2862	2862	2862	2862	
5°	2825	2831	2852	2858	2834	268
15°	2677	2695	2720	2736	2701	755
25°	2424	2454	2494	2503	2466	1117
35°	2098	2131	2181	2196	2161	1312
45°	1715	1745	1801	1803	1767	1323
55°	1300	1326	1361	1341	1319	1162
65°	864	882	897	880	865	855
75°	429	439	448	432	422	456
85°	82	83	87	88	85	103
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2862.5	2862.5	2862.5	2862.5	2862.5
2.5°	2840.1	2849.4	2858.9	2863.1	2839.8
5°	2825.2	2830.6	2851.8	2858.3	2834.2
7.5°	2800.8	2808.8	2829.4	2832.4	2809.1
10°	2767.4	2781.7	2795.4	2810.3	2782.0
12.5°	2724.7	2744.1	2767.4	2770.1	2748.6
15°	2676.7	2694.6	2719.9	2736.4	2700.9
17.5°	2623.0	2640.3	2673.1	2676.1	2654.6
20°	2563.1	2584.5	2623.9	2630.8	2592.3
22.5°	2495.1	2524.0	2556.8	2563.4	2535.0
25°	2423.8	2453.6	2494.2	2503.4	2465.6
27.5°	2349.2	2377.9	2423.5	2430.1	2398.1
30°	2269.3	2296.2	2346.3	2357.3	2324.8
32.5°	2188.2	2215.0	2270.5	2279.7	2248.1
35°	2098.1	2130.9	2181.3	2196.5	2161.0
37.5°	2006.3	2038.2	2095.4	2109.2	2071.0
40°	1911.1	1942.7	1999.1	2010.4	1973.8
42.5°	1813.9	1845.5	1905.8	1907.5	1877.1
45°	1714.6	1745.0	1801.1	1802.6	1767.1
47.5°	1613.8	1644.5	1694.6	1688.9	1655.5
50°	1511.8	1541.0	1584.8	1573.5	1543.4
52.5°	1406.2	1434.5	1476.0	1457.5	1429.2
55°	1300.0	1326.3	1360.9	1341.2	1319.1
57.5°	1193.0	1219.5	1246.0	1226.1	1207.0
60°	1085.0	1108.3	1130.0	1109.8	1095.1
62.5°	975.2	995.2	1014.0	994.6	980.9
65°	864.3	881.9	897.4	879.5	864.9
67.5°	754.0	768.9	783.2	764.7	749.5
70°	643.6	656.4	669.5	650.5	636.4
72.5°	534.7	546.1	557.7	539.2	527.0
75°	428.9	438.7	448.3	431.9	422.3
77.5°	327.8	336.1	342.7	332.2	323.0
80°	233.8	240.1	244.0	239.8	231.1
82.5°	150.3	154.8	156.9	156.6	150.9
85°	81.7	83.2	87.1	88.0	85.0
87.5°	31.6	33.7	34.6	37.3	34.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)