

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: P489177

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-50-120-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: P489177  
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  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

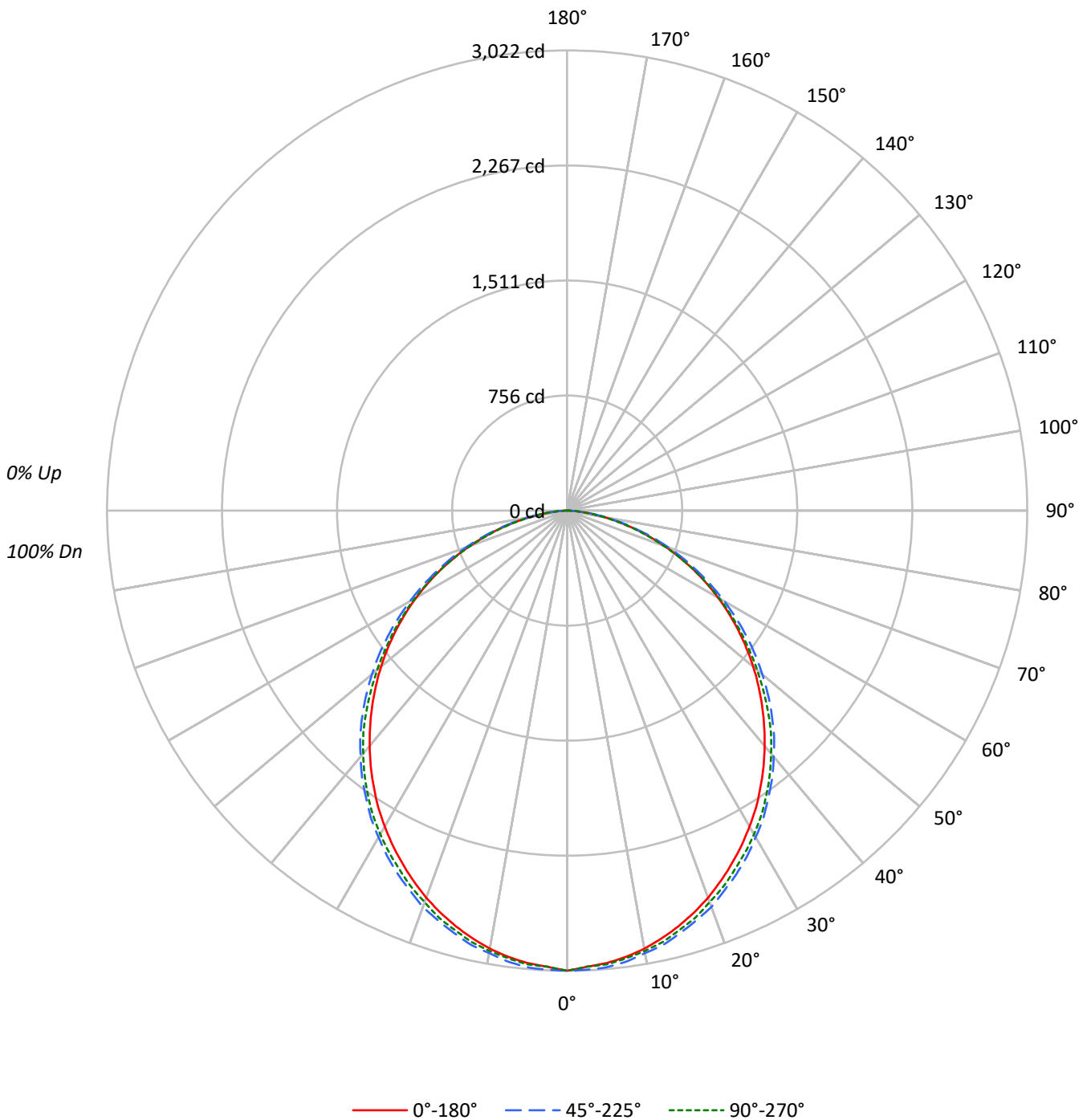
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7944.6 lumens  
Efficiency: N/A  
Efficacy: 119.3 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°	8132	8132	8132
5°	8057	8132	8082
10°	7983	8064	8025
15°	7872	7999	7943
20°	7748	7932	7837
25°	7597	7818	7728
30°	7444	7696	7626
35°	7276	7565	7494
40°	7087	7413	7319
45°	6888	7236	7099
50°	6681	7004	6821
55°	6439	6740	6533
60°	6164	6420	6222
65°	5810	6032	5813
70°	5345	5561	5286
75°	4707	4920	4635
80°	3825	3990	3781
85°	2665	2837	2770



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	284.6	3.6
10°-20°	806.5	10.2
20°-30°	1202.8	15.1
30°-40°	1425.4	17.9
40°-50°	1442.3	18.2
50°-60°	1259.6	15.9
60°-70°	920.5	11.6
70°-80°	489.8	6.2
80°-90°	113.2	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°	2293.9	28.9
0°-40°	3719.3	46.8
0°-60°	6421.2	80.8
0°-90°	7944.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7944.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3022	3022	3022	3022	3022	
5°	2982	2988	3010	3017	2992	283
15°	2826	2845	2871	2889	2851	797
25°	2559	2590	2633	2643	2603	1179
35°	2215	2250	2303	2319	2281	1385
45°	1810	1842	1901	1903	1865	1396
55°	1372	1400	1437	1416	1392	1227
65°	912	931	947	928	913	903
75°	453	463	473	456	446	481
85°	86	88	92	93	90	109
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3021.8	3021.8	3021.8	3021.8	3021.8
2.5°	2998.2	3008.0	3018.1	3022.5	2997.9
5°	2982.5	2988.2	3010.5	3017.4	2991.9
7.5°	2956.7	2965.2	2986.9	2990.0	2965.5
10°	2921.4	2936.5	2951.0	2966.7	2936.8
12.5°	2876.4	2896.9	2921.4	2924.2	2901.6
15°	2825.7	2844.6	2871.3	2888.7	2851.2
17.5°	2769.0	2787.3	2821.9	2825.1	2802.4
20°	2705.7	2728.4	2770.0	2777.2	2736.6
22.5°	2634.0	2664.5	2699.1	2706.1	2676.1
25°	2558.7	2590.2	2633.0	2642.8	2602.8
27.5°	2480.0	2510.2	2558.4	2565.3	2531.6
30°	2395.6	2424.0	2476.9	2488.5	2454.2
32.5°	2310.0	2338.3	2396.9	2406.6	2373.3
35°	2214.9	2249.5	2302.7	2318.8	2281.3
37.5°	2117.9	2151.6	2212.1	2226.6	2186.3
40°	2017.5	2050.9	2110.4	2122.3	2083.6
42.5°	1914.9	1948.2	2011.8	2013.7	1981.6
45°	1810.0	1842.1	1901.3	1902.9	1865.4
47.5°	1703.6	1736.0	1788.9	1782.9	1747.7
50°	1595.9	1626.8	1673.1	1661.1	1629.3
52.5°	1484.5	1514.4	1558.1	1538.6	1508.7
55°	1372.4	1400.1	1436.6	1415.8	1392.5
57.5°	1259.4	1287.4	1315.4	1294.3	1274.2
60°	1145.4	1169.9	1192.9	1171.5	1156.1
62.5°	1029.5	1050.6	1070.5	1050.0	1035.5
65°	912.4	931.0	947.4	928.5	913.0
67.5°	795.9	811.7	826.8	807.3	791.2
70°	679.4	693.0	706.8	686.7	671.9
72.5°	564.5	576.5	588.8	569.2	556.3
75°	452.7	463.1	473.2	455.9	445.8
77.5°	346.0	354.8	361.8	350.7	341.0
80°	246.8	253.4	257.5	253.1	244.0
82.5°	158.7	163.4	165.6	165.3	159.3
85°	86.3	87.8	91.9	92.9	89.7
87.5°	33.4	35.6	36.5	39.4	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)