

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: P489173

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-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: P489173  
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-35-120-EDD  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

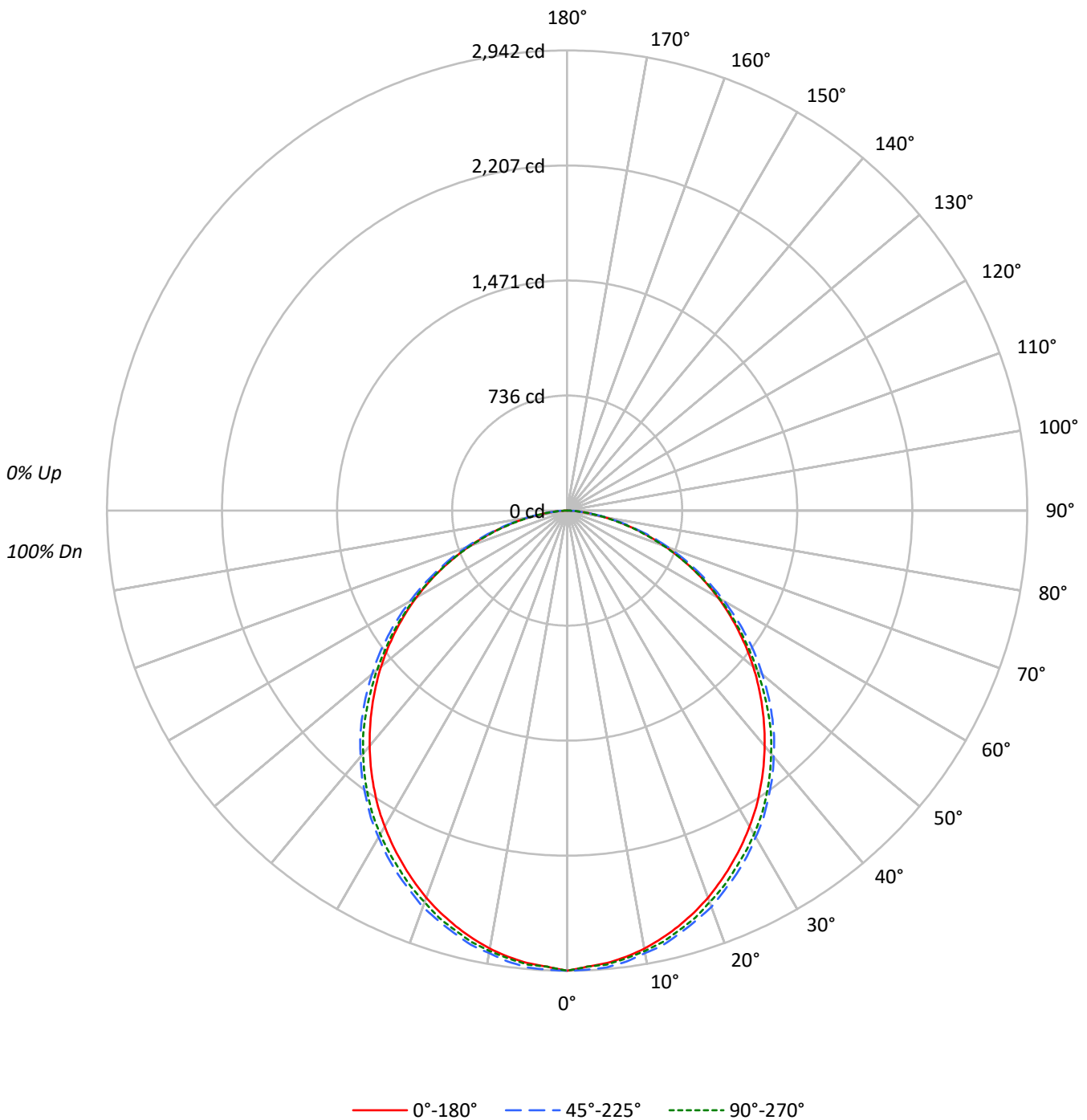
Lumens per Lamp: N/A  
Luminaire Lumens: 7734.7 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	7917	7917	7917
5°	7844	7917	7868
10°	7772	7850	7813
15°	7664	7788	7733
20°	7544	7723	7630
25°	7396	7611	7524
30°	7247	7493	7424
35°	7084	7365	7296
40°	6900	7217	7126
45°	6706	7045	6911
50°	6505	6819	6641
55°	6268	6562	6360
60°	6001	6251	6058
65°	5656	5873	5660
70°	5205	5414	5146
75°	4583	4790	4512
80°	3724	3885	3682
85°	2594	2763	2699



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	277.1	3.6
10°-20°	785.2	10.2
20°-30°	1171.1	15.1
30°-40°	1387.7	17.9
40°-50°	1404.2	18.2
50°-60°	1226.3	15.9
60°-70°	896.1	11.6
70°-80°	476.8	6.2
80°-90°	110.2	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°	2233.3	28.9
0°-40°	3621.0	46.8
0°-60°	6251.5	80.8
0°-90°	7734.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7734.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2942	2942	2942	2942	2942	
5°	2904	2909	2931	2938	2913	275
15°	2751	2769	2796	2812	2776	776
25°	2491	2522	2563	2573	2534	1148
35°	2156	2190	2242	2258	2221	1349
45°	1762	1794	1851	1853	1816	1359
55°	1336	1363	1399	1378	1356	1194
65°	888	906	922	904	889	879
75°	441	451	461	444	434	469
85°	84	86	90	90	87	106
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2942.0	2942.0	2942.0	2942.0	2942.0
2.5°	2919.0	2928.5	2938.3	2942.6	2918.7
5°	2903.7	2909.2	2931.0	2937.7	2912.9
7.5°	2878.6	2886.8	2908.0	2911.0	2887.1
10°	2844.2	2858.9	2873.0	2888.4	2859.2
12.5°	2800.4	2820.3	2844.2	2847.0	2824.9
15°	2751.0	2769.4	2795.5	2812.3	2775.9
17.5°	2695.9	2713.6	2747.4	2750.4	2728.4
20°	2634.3	2656.3	2696.8	2703.8	2664.3
22.5°	2564.4	2594.1	2627.8	2634.6	2605.4
25°	2491.1	2521.8	2563.4	2573.0	2534.0
27.5°	2414.5	2443.9	2490.8	2497.5	2464.7
30°	2332.3	2359.9	2411.4	2422.8	2389.3
32.5°	2249.0	2276.5	2333.6	2343.1	2310.6
35°	2156.4	2190.1	2241.9	2257.5	2221.1
37.5°	2062.0	2094.8	2153.6	2167.7	2128.5
40°	1964.2	1996.7	2054.6	2066.3	2028.6
42.5°	1864.3	1896.8	1958.7	1960.5	1929.3
45°	1762.2	1793.5	1851.1	1852.6	1816.1
47.5°	1658.6	1690.2	1741.7	1735.8	1701.5
50°	1553.8	1583.8	1628.9	1617.2	1586.3
52.5°	1445.3	1474.4	1517.0	1498.0	1468.9
55°	1336.1	1363.1	1398.7	1378.4	1355.7
57.5°	1226.1	1253.4	1280.7	1260.1	1240.5
60°	1115.1	1139.0	1161.4	1140.6	1125.6
62.5°	1002.3	1022.9	1042.2	1022.3	1008.2
65°	888.3	906.4	922.3	903.9	888.9
67.5°	774.9	790.2	804.9	785.9	770.3
70°	661.5	674.7	688.1	668.5	654.1
72.5°	549.6	561.2	573.2	554.2	541.6
75°	440.8	450.9	460.7	443.8	434.0
77.5°	336.9	345.5	352.2	341.5	332.0
80°	240.3	246.8	250.7	246.4	237.6
82.5°	154.5	159.1	161.2	160.9	155.1
85°	84.0	85.5	89.5	90.4	87.4
87.5°	32.5	34.6	35.6	38.3	35.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)