

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: P489707

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4STD-20-120-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: P489707  
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-24-4-INS-A19156-LD4-4STD-20-120-EDD  
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

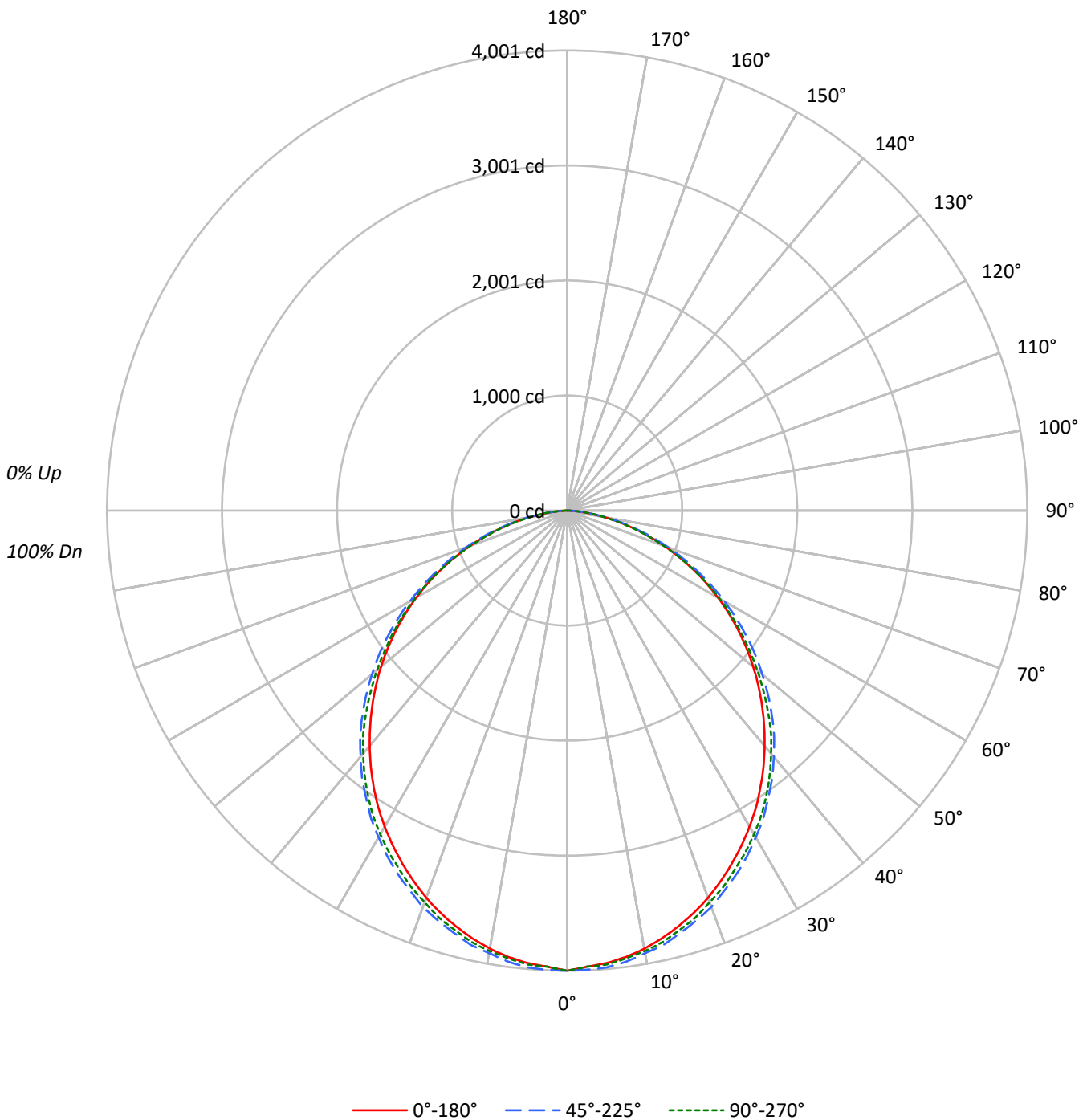
Lumens per Lamp: N/A  
Luminaire Lumens: 10519.7 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 133.2  
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°	5384	5384	5384
5°	5334	5384	5351
10°	5285	5339	5313
15°	5212	5296	5259
20°	5130	5252	5188
25°	5030	5176	5116
30°	4928	5095	5049
35°	4817	5008	4962
40°	4692	4908	4846
45°	4560	4791	4700
50°	4423	4637	4516
55°	4263	4462	4325
60°	4081	4251	4119
65°	3847	3994	3849
70°	3539	3682	3500
75°	3117	3257	3069
80°	2532	2642	2503
85°	1763	1879	1834



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	376.8	3.6
10°-20°	1067.9	10.2
20°-30°	1592.7	15.1
30°-40°	1887.4	17.9
40°-50°	1909.7	18.2
50°-60°	1667.9	15.9
60°-70°	1218.8	11.6
70°-80°	648.5	6.2
80°-90°	149.9	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°	3037.5	28.9
0°-40°	4924.8	46.8
0°-60°	8502.5	80.8
0°-90°	10519.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10519.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4001	4001	4001	4001	4001	
5°	3949	3957	3986	3996	3962	374
15°	3742	3767	3802	3825	3775	1055
25°	3388	3430	3486	3499	3446	1561
35°	2933	2979	3049	3070	3021	1834
45°	2397	2439	2518	2520	2470	1849
55°	1817	1854	1902	1875	1844	1624
65°	1208	1233	1254	1229	1209	1196
75°	600	613	627	604	590	637
85°	114	116	122	123	119	145
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4001.3	4001.3	4001.3	4001.3	4001.3
2.5°	3970.1	3983.0	3996.3	4002.2	3969.6
5°	3949.2	3956.7	3986.3	3995.5	3961.7
7.5°	3915.0	3926.3	3955.0	3959.2	3926.7
10°	3868.3	3888.3	3907.5	3928.4	3888.8
12.5°	3808.7	3835.8	3868.3	3872.1	3842.1
15°	3741.6	3766.6	3802.0	3825.0	3775.4
17.5°	3666.6	3690.7	3736.6	3740.8	3710.7
20°	3582.8	3612.8	3667.8	3677.4	3623.6
22.5°	3487.7	3528.1	3574.0	3583.2	3543.6
25°	3388.1	3429.8	3486.5	3499.4	3446.4
27.5°	3283.9	3323.9	3387.7	3396.8	3352.2
30°	3172.1	3209.6	3279.7	3295.1	3249.7
32.5°	3058.7	3096.2	3173.8	3186.7	3142.5
35°	2932.8	2978.7	3049.1	3070.4	3020.8
37.5°	2804.4	2849.0	2929.1	2948.3	2894.9
40°	2671.4	2715.6	2794.4	2810.3	2759.0
42.5°	2535.5	2579.7	2663.9	2666.4	2623.9
45°	2396.7	2439.2	2517.6	2519.7	2470.1
47.5°	2255.8	2298.7	2368.8	2360.9	2314.2
50°	2113.2	2154.1	2215.4	2199.5	2157.4
52.5°	1965.6	2005.2	2063.2	2037.3	1997.7
55°	1817.2	1853.9	1902.3	1874.8	1843.9
57.5°	1667.6	1704.7	1741.8	1713.8	1687.2
60°	1516.6	1549.2	1579.6	1551.3	1530.8
62.5°	1363.2	1391.2	1417.4	1390.3	1371.2
65°	1208.2	1232.7	1254.4	1229.4	1209.0
67.5°	1053.9	1074.7	1094.8	1068.9	1047.6
70°	899.7	917.6	935.9	909.2	889.6
72.5°	747.5	763.3	779.6	753.7	736.6
75°	599.5	613.2	626.6	603.7	590.3
77.5°	458.2	469.8	479.0	464.4	451.5
80°	326.8	335.6	341.0	335.2	323.1
82.5°	210.1	216.4	219.3	218.9	210.9
85°	114.2	116.3	121.7	123.0	118.8
87.5°	44.2	47.1	48.4	52.1	47.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)