

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: P488729

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3LO-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: P488729  
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-12-4-INS-A19156-LD4-3LO-35-120-EDD  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

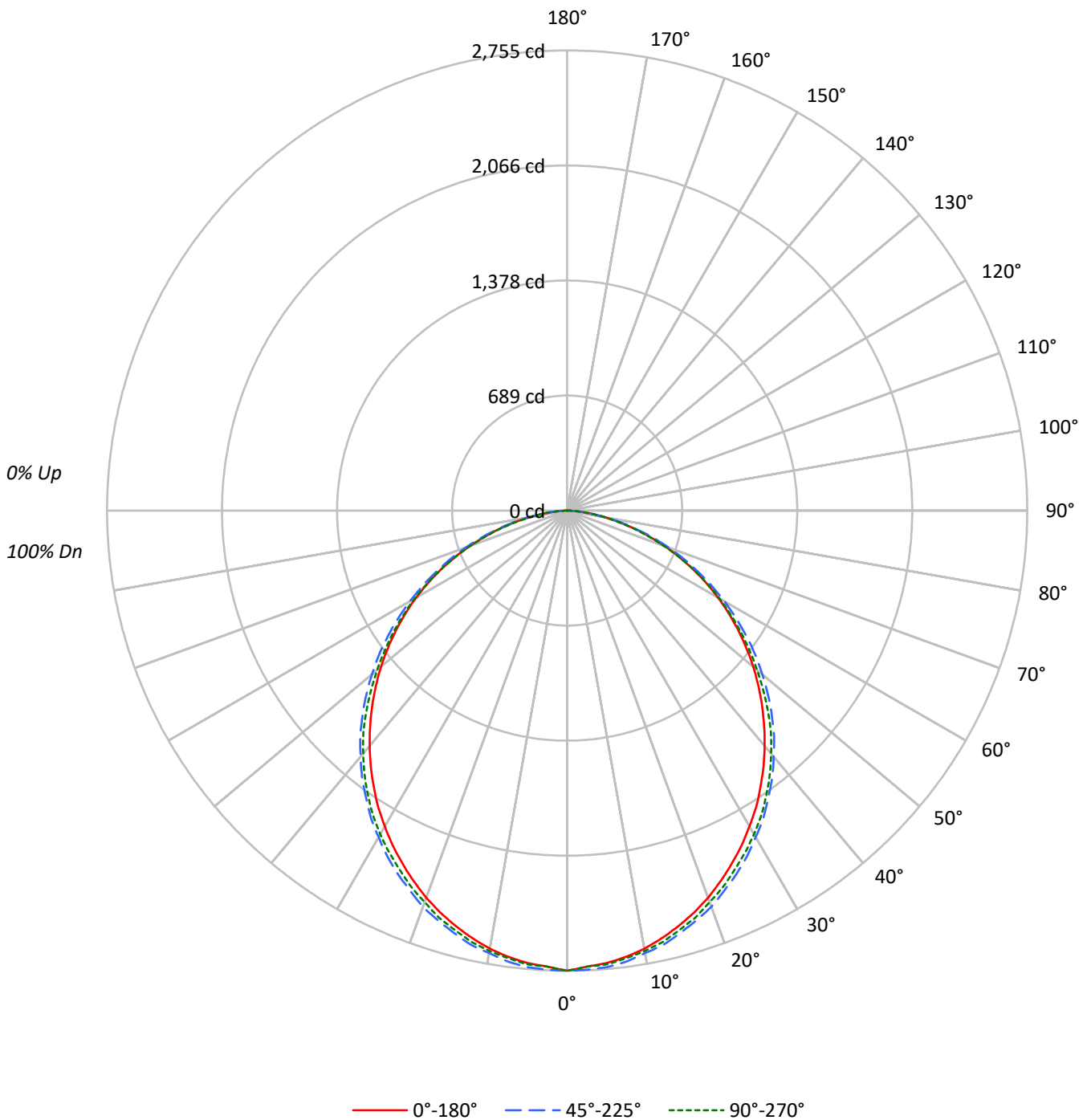
Lumens per Lamp: N/A  
Luminaire Lumens: 7242.1 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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	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°	7413	7413	7413
5°	7344	7413	7367
10°	7277	7351	7315
15°	7176	7292	7241
20°	7063	7231	7144
25°	6926	7127	7045
30°	6786	7016	6952
35°	6633	6896	6832
40°	6460	6758	6672
45°	6279	6596	6471
50°	6090	6385	6218
55°	5869	6144	5955
60°	5619	5852	5672
65°	5296	5499	5300
70°	4873	5069	4819
75°	4291	4485	4225
80°	3487	3639	3446
85°	2427	2587	2526



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.4	3.6
10°-20°	735.2	10.2
20°-30°	1096.5	15.1
30°-40°	1299.3	17.9
40°-50°	1314.7	18.2
50°-60°	1148.2	15.9
60°-70°	839.1	11.6
70°-80°	446.5	6.2
80°-90°	103.2	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°	2091.1	28.9
0°-40°	3390.4	46.8
0°-60°	5853.4	80.8
0°-90°	7242.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7242.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2755	2755	2755	2755	2755	
5°	2719	2724	2744	2751	2727	258
15°	2576	2593	2618	2633	2599	726
25°	2332	2361	2400	2409	2373	1075
35°	2019	2051	2099	2114	2080	1263
45°	1650	1679	1733	1735	1700	1273
55°	1251	1276	1310	1291	1269	1118
65°	832	849	864	846	832	823
75°	413	422	431	416	406	439
85°	79	80	84	85	82	100
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2754.6	2754.6	2754.6	2754.6	2754.6
2.5°	2733.1	2742.0	2751.2	2755.2	2732.8
5°	2718.8	2723.9	2744.3	2750.6	2727.4
7.5°	2695.2	2703.0	2722.8	2725.6	2703.3
10°	2663.1	2676.9	2690.1	2704.4	2677.1
12.5°	2622.0	2640.7	2663.1	2665.7	2645.0
15°	2575.8	2593.1	2617.5	2633.2	2599.1
17.5°	2524.2	2540.8	2572.4	2575.3	2554.6
20°	2466.5	2487.2	2525.0	2531.6	2494.6
22.5°	2401.1	2428.9	2460.5	2466.8	2439.5
25°	2332.5	2361.2	2400.2	2409.1	2372.6
27.5°	2260.7	2288.3	2332.2	2338.5	2307.8
30°	2183.8	2209.6	2257.8	2268.5	2237.2
32.5°	2105.7	2131.6	2184.9	2193.8	2163.4
35°	2019.1	2050.6	2099.1	2113.8	2079.6
37.5°	1930.7	1961.4	2016.5	2029.7	1992.9
40°	1839.1	1869.5	1923.8	1934.7	1899.4
42.5°	1745.5	1776.0	1833.9	1835.7	1806.4
45°	1650.0	1679.2	1733.2	1734.6	1700.5
47.5°	1553.0	1582.5	1630.7	1625.3	1593.1
50°	1454.8	1482.9	1525.1	1514.2	1485.2
52.5°	1353.2	1380.5	1420.4	1402.6	1375.3
55°	1251.0	1276.3	1309.6	1290.6	1269.4
57.5°	1148.0	1173.5	1199.1	1179.9	1161.5
60°	1044.1	1066.5	1087.4	1067.9	1053.9
62.5°	938.5	957.7	975.8	957.1	943.9
65°	831.7	848.7	863.6	846.4	832.3
67.5°	725.5	739.9	753.7	735.9	721.2
70°	619.3	631.7	644.3	625.9	612.5
72.5°	514.6	525.5	536.7	518.9	507.1
75°	412.7	422.2	431.4	415.6	406.4
77.5°	315.4	323.5	329.8	319.7	310.8
80°	225.0	231.0	234.8	230.7	222.4
82.5°	144.6	149.0	151.0	150.7	145.2
85°	78.6	80.1	83.8	84.7	81.8
87.5°	30.4	32.4	33.3	35.9	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)