

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: P488715

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-30-120-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: P488715  
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-LD4-3HI-30-120-EDD  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

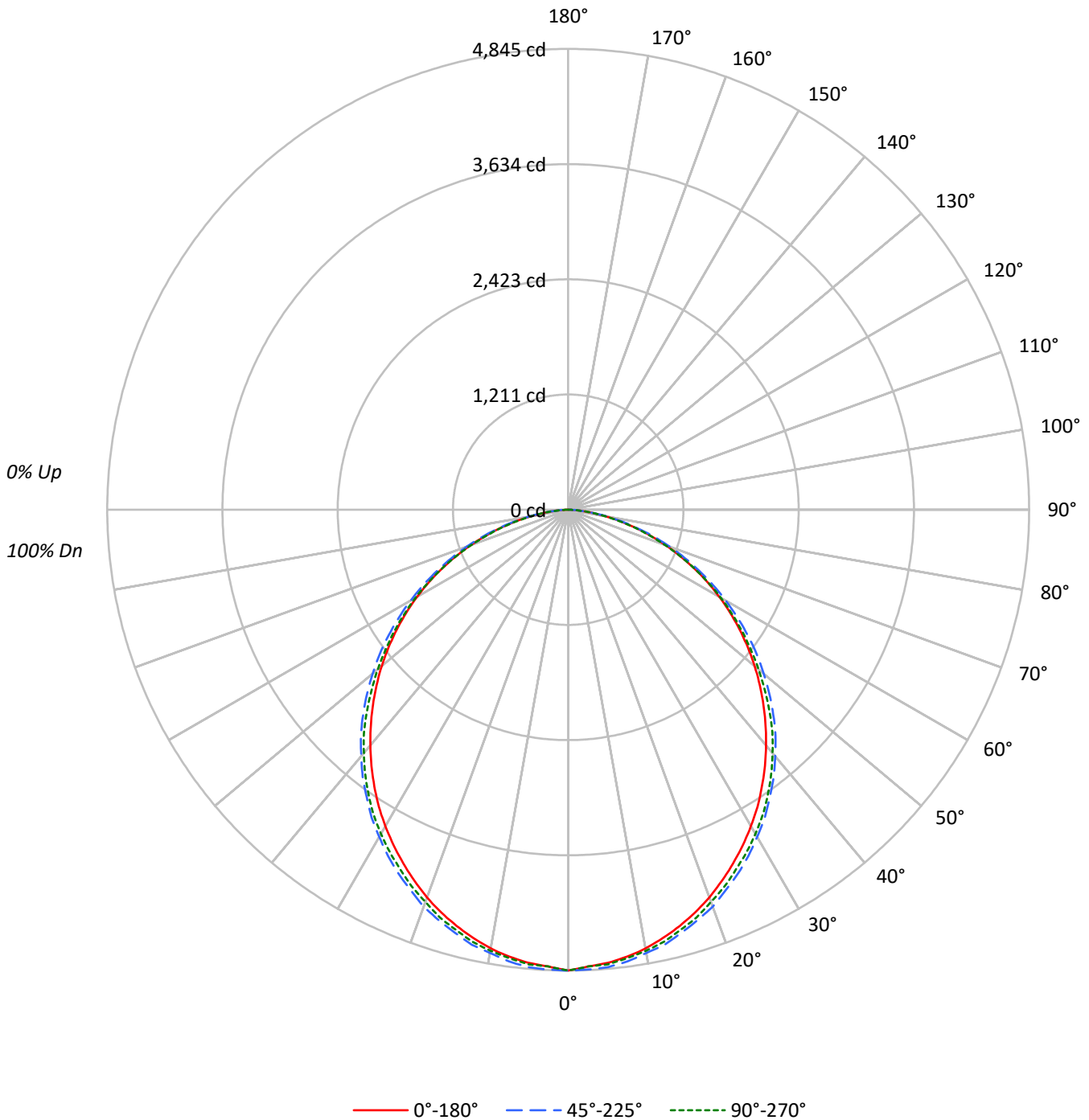
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12738.5 lumens  
Efficiency: N/A  
Efficacy: 98.3 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): 129.6  
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°	13039	13039	13039
5°	12918	13039	12959
10°	12800	12929	12867
15°	12622	12826	12736
20°	12424	12719	12566
25°	12182	12535	12392
30°	11936	12340	12227
35°	11667	12129	12016
40°	11364	11887	11736
45°	11045	11602	11383
50°	10713	11230	10937
55°	10324	10807	10475
60°	9884	10295	9977
65°	9316	9672	9322
70°	8571	8917	8476
75°	7547	7888	7432
80°	6134	6399	6062
85°	4270	4551	4443



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	456.3	3.6
10°-20°	1293.1	10.2
20°-30°	1928.7	15.1
30°-40°	2285.5	17.9
40°-50°	2312.5	18.2
50°-60°	2019.7	15.9
60°-70°	1475.9	11.6
70°-80°	785.3	6.2
80°-90°	181.5	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
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0°-30°	3678.1	28.9
0°-40°	5963.6	46.8
0°-60°	10295.8	80.8
0°-90°	12738.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12738.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4845	4845	4845	4845	4845	
5°	4782	4791	4827	4838	4797	453
15°	4531	4561	4604	4632	4572	1277
25°	4103	4153	4222	4238	4173	1890
35°	3551	3607	3692	3718	3658	2221
45°	2902	2954	3049	3051	2991	2239
55°	2200	2245	2304	2270	2233	1967
65°	1463	1493	1519	1489	1464	1448
75°	726	743	759	731	715	772
85°	138	141	147	149	144	175
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4845.3	4845.3	4845.3	4845.3	4845.3
2.5°	4807.4	4823.1	4839.2	4846.3	4806.9
5°	4782.2	4791.3	4827.1	4838.2	4797.3
7.5°	4740.8	4754.4	4789.2	4794.3	4754.9
10°	4684.2	4708.5	4731.7	4756.9	4709.0
12.5°	4612.0	4644.9	4684.2	4688.8	4652.4
15°	4530.8	4561.1	4604.0	4631.7	4571.7
17.5°	4439.9	4469.2	4524.7	4529.8	4493.4
20°	4338.4	4374.8	4441.4	4453.0	4387.9
22.5°	4223.3	4272.3	4327.8	4338.9	4291.0
25°	4102.7	4153.2	4221.8	4237.5	4173.4
27.5°	3976.5	4024.9	4102.2	4113.3	4059.3
30°	3841.2	3886.6	3971.4	3990.1	3935.1
32.5°	3703.9	3749.3	3843.2	3858.9	3805.3
35°	3551.4	3606.9	3692.3	3718.0	3657.9
37.5°	3395.9	3449.9	3546.9	3570.1	3505.5
40°	3234.9	3288.4	3383.8	3403.0	3340.9
42.5°	3070.3	3123.8	3225.8	3228.8	3177.3
45°	2902.2	2953.7	3048.6	3051.1	2991.1
47.5°	2731.6	2783.6	2868.4	2858.8	2802.3
50°	2558.9	2608.4	2682.6	2663.4	2612.4
52.5°	2380.2	2428.2	2498.4	2467.1	2419.1
55°	2200.5	2244.9	2303.5	2270.2	2232.8
57.5°	2019.3	2064.2	2109.1	2075.3	2043.0
60°	1836.5	1875.9	1912.8	1878.4	1853.7
62.5°	1650.8	1684.6	1716.4	1683.6	1660.4
65°	1463.0	1492.8	1519.0	1488.7	1464.0
67.5°	1276.2	1301.4	1325.7	1294.4	1268.6
70°	1089.4	1111.1	1133.3	1101.0	1077.3
72.5°	905.1	924.3	944.0	912.7	892.0
75°	725.9	742.6	758.7	731.0	714.8
77.5°	554.8	568.9	580.0	562.4	546.7
80°	395.8	406.4	412.9	405.9	391.2
82.5°	254.4	262.0	265.5	265.0	255.4
85°	138.3	140.8	147.4	148.9	143.9
87.5°	53.5	57.0	58.6	63.1	58.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)