

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: P488656

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1LO-35-120-EDD-90**

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: P488656  
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-LD4-1LO-35-120-EDD-90  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

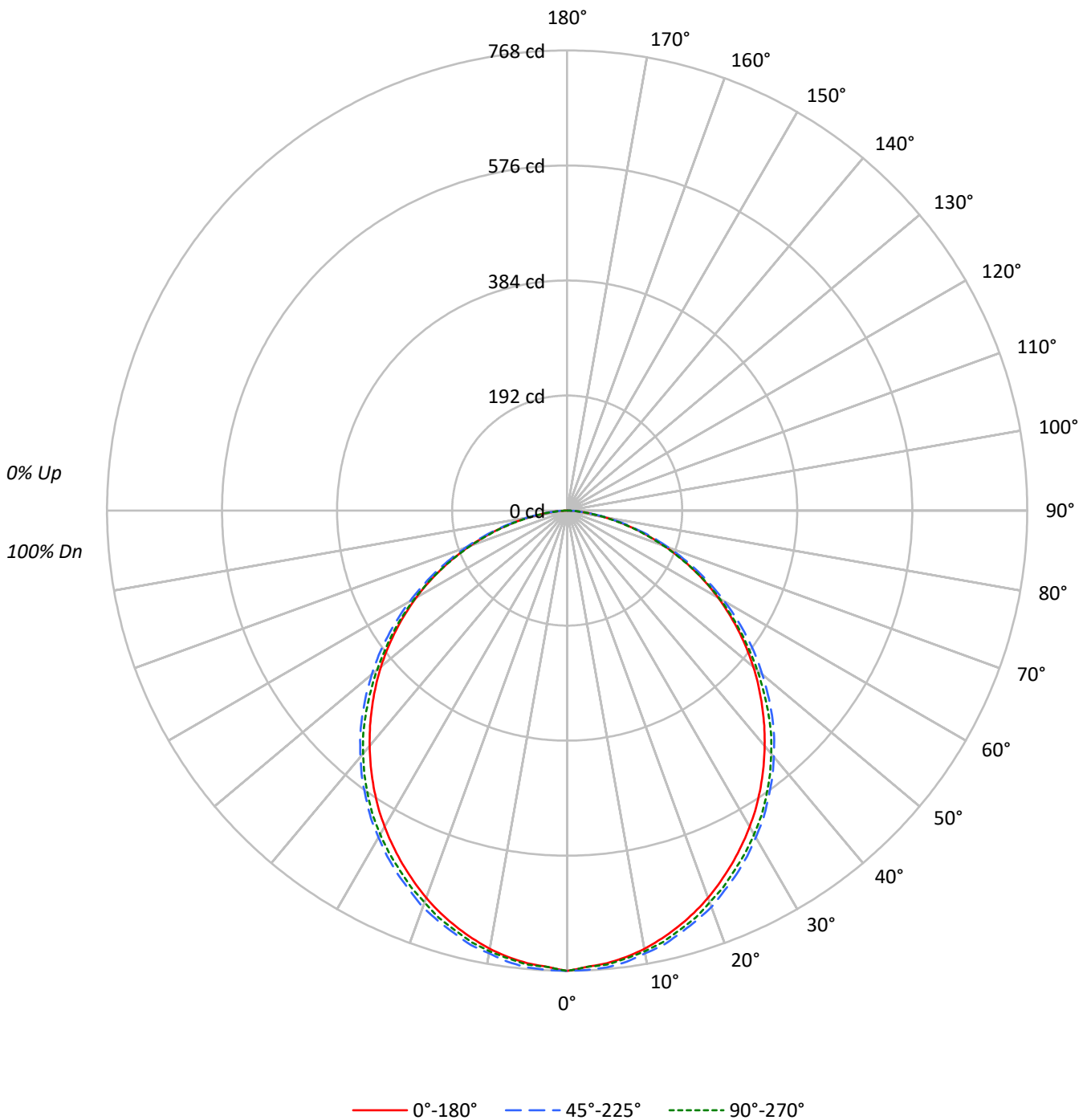
Lumens per Lamp: N/A  
Luminaire Lumens: 2019.9 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2067	2067	2067
5°	2048	2068	2055
10°	2030	2050	2040
15°	2001	2034	2020
20°	1970	2017	1993
25°	1931	1988	1965
30°	1893	1957	1939
35°	1850	1923	1905
40°	1802	1885	1861
45°	1751	1840	1805
50°	1699	1781	1734
55°	1637	1714	1661
60°	1567	1632	1582
65°	1477	1534	1478
70°	1359	1414	1344
75°	1197	1251	1178
80°	973	1015	961
85°	676	722	704



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.4	3.6
10°-20°	205.0	10.2
20°-30°	305.8	15.1
30°-40°	362.4	17.9
40°-50°	366.7	18.2
50°-60°	320.3	15.9
60°-70°	234.0	11.6
70°-80°	124.5	6.2
80°-90°	28.8	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°	583.2	28.9
0°-40°	945.6	46.8
0°-60°	1632.6	80.8
0°-90°	2019.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	758	760	765	767	761	72
15°	718	723	730	734	725	203
25°	650	659	669	672	662	300
35°	563	572	586	590	580	352
45°	460	468	483	484	474	355
55°	349	356	365	360	354	312
65°	232	237	241	236	232	230
75°	115	118	120	116	113	122
85°	22	22	23	24	23	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	768.3	768.3	768.3	768.3	768.3
2.5°	762.3	764.8	767.3	768.5	762.2
5°	758.3	759.7	765.4	767.2	760.7
7.5°	751.7	753.9	759.4	760.2	754.0
10°	742.8	746.6	750.3	754.3	746.7
12.5°	731.3	736.5	742.8	743.5	737.7
15°	718.4	723.2	730.0	734.4	724.9
17.5°	704.0	708.7	717.5	718.3	712.5
20°	687.9	693.7	704.3	706.1	695.8
22.5°	669.7	677.4	686.2	688.0	680.4
25°	650.5	658.6	669.4	671.9	661.8
27.5°	630.5	638.2	650.5	652.2	643.7
30°	609.1	616.3	629.7	632.7	624.0
32.5°	587.3	594.5	609.4	611.9	603.4
35°	563.1	571.9	585.5	589.6	580.0
37.5°	538.5	547.0	562.4	566.1	555.9
40°	512.9	521.4	536.6	539.6	529.8
42.5°	486.9	495.3	511.5	512.0	503.8
45°	460.2	468.4	483.4	483.8	474.3
47.5°	433.1	441.4	454.8	453.3	444.3
50°	405.8	413.6	425.4	422.3	414.2
52.5°	377.4	385.0	396.2	391.2	383.6
55°	348.9	356.0	365.3	360.0	354.1
57.5°	320.2	327.3	334.4	329.1	324.0
60°	291.2	297.5	303.3	297.9	293.9
62.5°	261.8	267.1	272.2	267.0	263.3
65°	232.0	236.7	240.9	236.1	232.1
67.5°	202.4	206.4	210.2	205.2	201.2
70°	172.7	176.2	179.7	174.6	170.8
72.5°	143.5	146.6	149.7	144.7	141.4
75°	115.1	117.8	120.3	115.9	113.3
77.5°	88.0	90.2	92.0	89.2	86.7
80°	62.8	64.4	65.5	64.4	62.0
82.5°	40.3	41.5	42.1	42.0	40.5
85°	21.9	22.3	23.4	23.6	22.8
87.5°	8.5	9.0	9.3	10.0	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)