

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: P488708

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2STD-50-120-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: P488708  
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-LD4-2STD-50-120-EDD-90  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

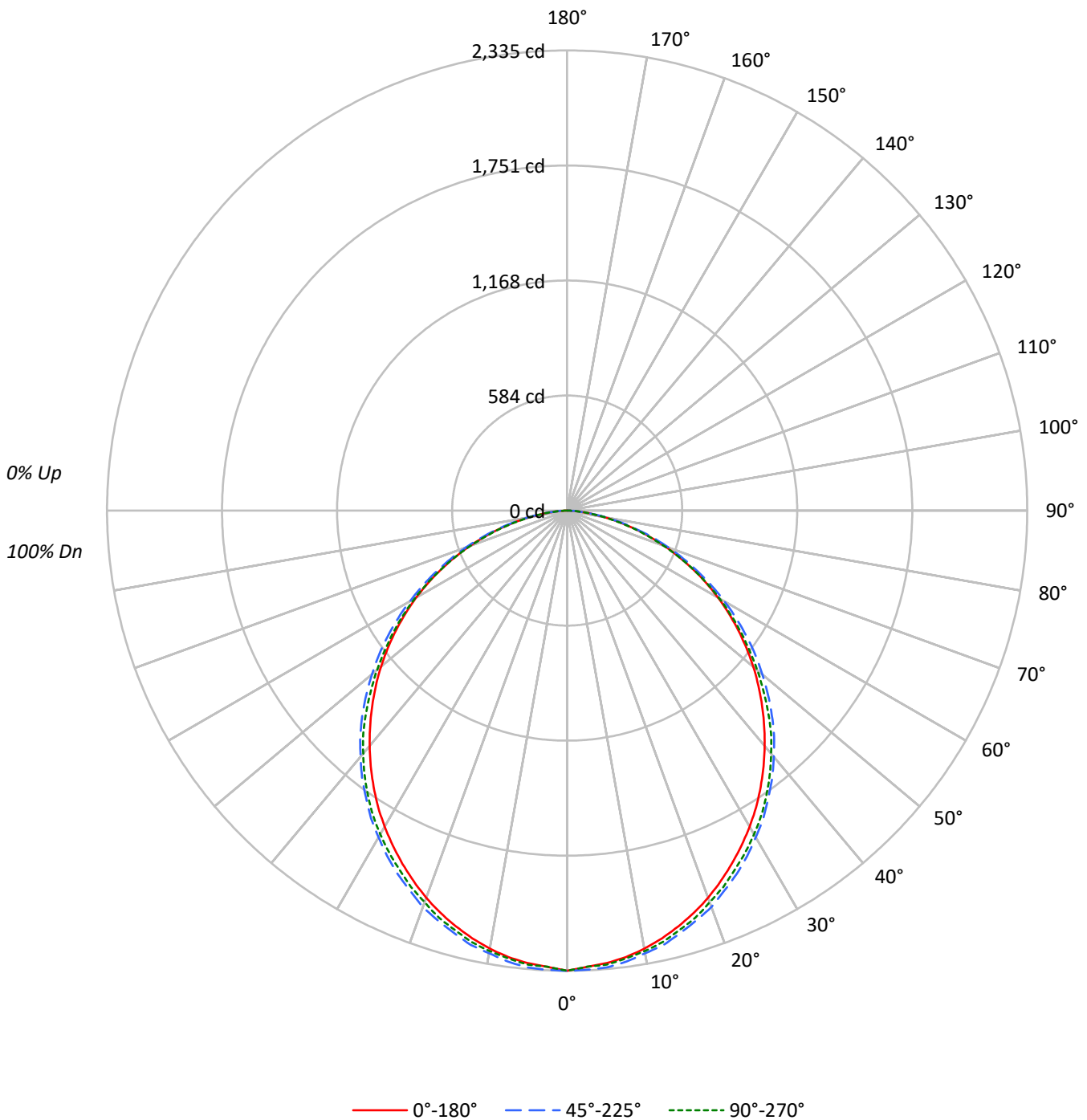
Lumens per Lamp: N/A  
Luminaire Lumens: 6139.7 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	6284	6284	6284
5°	6226	6285	6246
10°	6169	6232	6202
15°	6084	6182	6138
20°	5988	6130	6056
25°	5871	6042	5972
30°	5753	5948	5893
35°	5623	5846	5792
40°	5477	5729	5656
45°	5323	5592	5486
50°	5164	5413	5271
55°	4976	5209	5049
60°	4764	4962	4808
65°	4490	4662	4493
70°	4131	4297	4085
75°	3638	3802	3582
80°	2957	3084	2923
85°	2059	2192	2140



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.9	3.6
10°-20°	623.3	10.2
20°-30°	929.6	15.1
30°-40°	1101.6	17.9
40°-50°	1114.6	18.2
50°-60°	973.4	15.9
60°-70°	711.3	11.6
70°-80°	378.5	6.2
80°-90°	87.5	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
0°-30°	1772.8	28.9
0°-40°	2874.3	46.8
0°-60°	4962.4	80.8
0°-90°	6139.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6139.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2335	2335	2335	2335	2335	
5°	2305	2309	2327	2332	2312	219
15°	2184	2198	2219	2232	2203	616
25°	1977	2002	2035	2042	2012	911
35°	1712	1738	1780	1792	1763	1070
45°	1399	1424	1469	1471	1442	1079
55°	1061	1082	1110	1094	1076	948
65°	705	720	732	718	706	698
75°	350	358	366	352	344	372
85°	67	68	71	72	69	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2335.3	2335.3	2335.3	2335.3	2335.3
2.5°	2317.1	2324.6	2332.4	2335.8	2316.8
5°	2304.9	2309.3	2326.6	2331.9	2312.2
7.5°	2285.0	2291.5	2308.3	2310.7	2291.8
10°	2257.7	2269.4	2280.6	2292.7	2269.6
12.5°	2222.9	2238.7	2257.7	2259.9	2242.4
15°	2183.7	2198.3	2219.0	2232.4	2203.4
17.5°	2139.9	2154.1	2180.8	2183.3	2165.7
20°	2091.0	2108.6	2140.7	2146.3	2114.9
22.5°	2035.6	2059.2	2085.9	2091.3	2068.2
25°	1977.4	2001.7	2034.8	2042.4	2011.5
27.5°	1916.6	1939.9	1977.2	1982.5	1956.5
30°	1851.4	1873.3	1914.1	1923.2	1896.6
32.5°	1785.2	1807.1	1852.3	1859.9	1834.1
35°	1711.7	1738.5	1779.6	1792.0	1763.0
37.5°	1636.8	1662.8	1709.5	1720.7	1689.6
40°	1559.2	1584.9	1630.9	1640.2	1610.2
42.5°	1479.8	1505.6	1554.8	1556.2	1531.4
45°	1398.8	1423.6	1469.4	1470.6	1441.6
47.5°	1316.6	1341.6	1382.5	1377.9	1350.6
50°	1233.4	1257.2	1293.0	1283.7	1259.1
52.5°	1147.2	1170.3	1204.2	1189.1	1166.0
55°	1060.6	1082.0	1110.2	1094.2	1076.2
57.5°	973.3	994.9	1016.6	1000.3	984.7
60°	885.2	904.2	921.9	905.4	893.4
62.5°	795.6	811.9	827.3	811.5	800.3
65°	705.1	719.5	732.1	717.5	705.6
67.5°	615.1	627.3	638.9	623.9	611.4
70°	525.1	535.5	546.2	530.7	519.2
72.5°	436.3	445.5	455.0	439.9	429.9
75°	349.9	357.9	365.7	352.3	344.5
77.5°	267.4	274.2	279.6	271.1	263.5
80°	190.8	195.9	199.0	195.6	188.6
82.5°	122.6	126.3	128.0	127.7	123.1
85°	66.7	67.9	71.0	71.8	69.3
87.5°	25.8	27.5	28.2	30.4	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)