

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: P489582

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-40-120-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: P489582  
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-LD4-1HI-40-120-EDD-90  
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

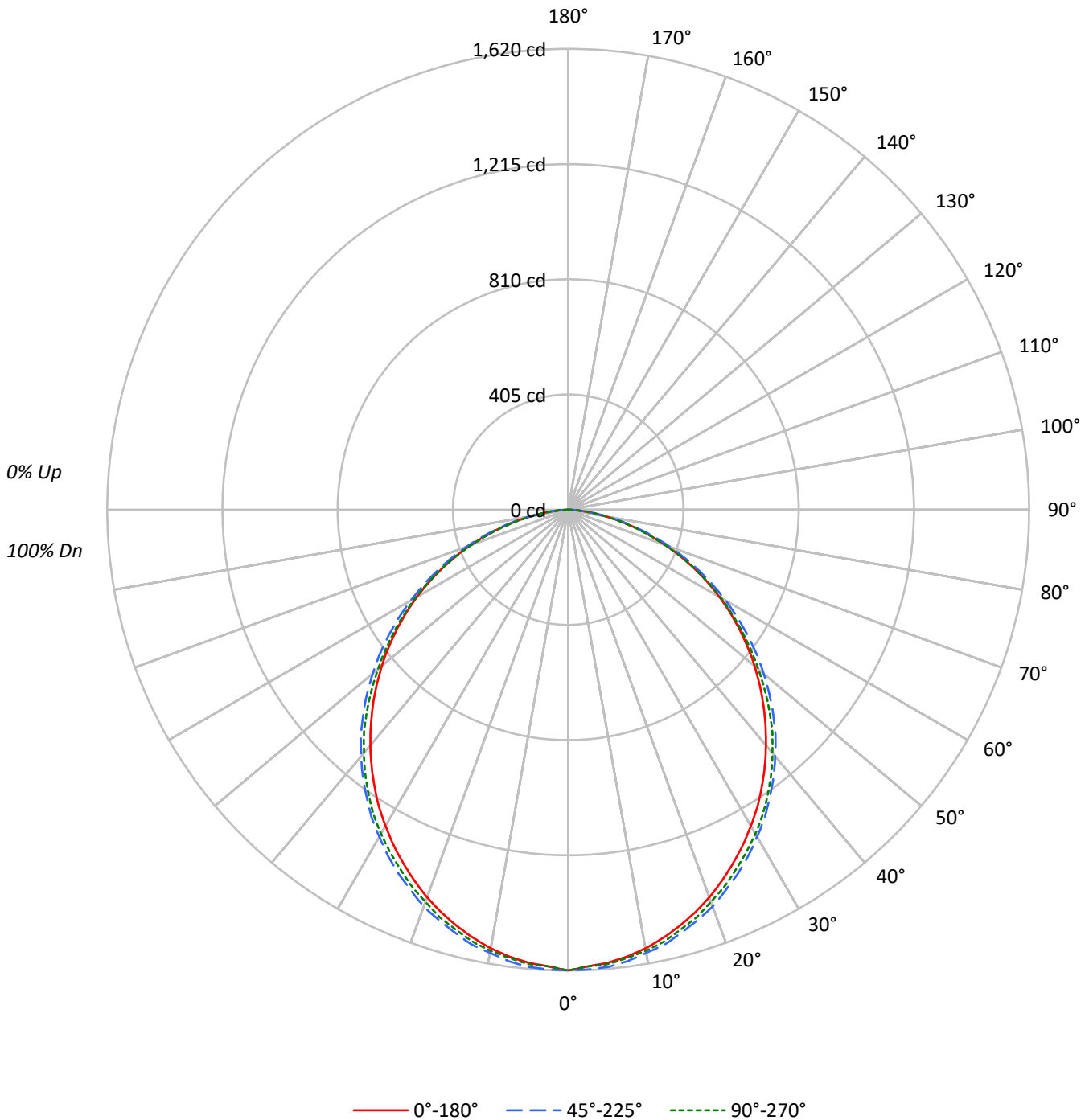
Lumens per Lamp: N/A  
Luminaire Lumens: 4257.9 lumens  
Efficiency: N/A  
Efficacy: 98.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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°	2179	2179	2179
5°	2159	2179	2166
10°	2139	2161	2150
15°	2109	2144	2129
20°	2076	2126	2100
25°	2036	2095	2071
30°	1995	2062	2043
35°	1950	2027	2008
40°	1899	1987	1961
45°	1846	1939	1902
50°	1790	1877	1828
55°	1725	1806	1751
60°	1652	1721	1667
65°	1557	1616	1558
70°	1432	1490	1417
75°	1261	1318	1242
80°	1025	1069	1013
85°	713	761	743



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	3.6
10°-20°	432.2	10.2
20°-30°	644.7	15.1
30°-40°	763.9	17.9
40°-50°	773.0	18.2
50°-60°	675.1	15.9
60°-70°	493.3	11.6
70°-80°	262.5	6.2
80°-90°	60.7	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°	1229.4	28.9
0°-40°	1993.4	46.8
0°-60°	3441.4	80.8
0°-90°	4257.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4257.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1620	1620	1620	1620	1620	
5°	1598	1602	1614	1617	1604	152
15°	1514	1525	1539	1548	1528	427
25°	1371	1388	1411	1416	1395	632
35°	1187	1206	1234	1243	1223	742
45°	970	987	1019	1020	1000	748
55°	736	750	770	759	746	658
65°	489	499	508	498	489	484
75°	243	248	254	244	239	258
85°	46	47	49	50	48	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1619.6	1619.6	1619.6	1619.6	1619.6
2.5°	1606.9	1612.1	1617.5	1619.9	1606.7
5°	1598.5	1601.5	1613.5	1617.2	1603.5
7.5°	1584.6	1589.2	1600.8	1602.5	1589.3
10°	1565.7	1573.8	1581.6	1590.0	1574.0
12.5°	1541.6	1552.6	1565.7	1567.2	1555.1
15°	1514.4	1524.6	1538.9	1548.2	1528.1
17.5°	1484.1	1493.8	1512.4	1514.1	1501.9
20°	1450.1	1462.3	1484.6	1488.4	1466.7
22.5°	1411.7	1428.0	1446.6	1450.3	1434.3
25°	1371.3	1388.2	1411.2	1416.4	1395.0
27.5°	1329.2	1345.4	1371.2	1374.9	1356.8
30°	1283.9	1299.1	1327.5	1333.7	1315.3
32.5°	1238.0	1253.2	1284.6	1289.8	1272.0
35°	1187.1	1205.6	1234.2	1242.8	1222.7
37.5°	1135.1	1153.2	1185.6	1193.3	1171.7
40°	1081.3	1099.2	1131.1	1137.5	1116.7
42.5°	1026.3	1044.2	1078.2	1079.3	1062.0
45°	970.1	987.3	1019.0	1019.9	999.8
47.5°	913.0	930.4	958.8	955.6	936.7
50°	855.3	871.9	896.7	890.3	873.2
52.5°	795.6	811.6	835.1	824.6	808.6
55°	735.5	750.4	770.0	758.8	746.3
57.5°	675.0	690.0	705.0	693.7	682.9
60°	613.9	627.0	639.4	627.9	619.6
62.5°	551.8	563.1	573.7	562.7	555.0
65°	489.0	499.0	507.7	497.6	489.3
67.5°	426.6	435.0	443.1	432.6	424.0
70°	364.1	371.4	378.8	368.0	360.1
72.5°	302.5	309.0	315.5	305.1	298.2
75°	242.6	248.2	253.6	244.3	238.9
77.5°	185.4	190.2	193.9	188.0	182.7
80°	132.3	135.8	138.0	135.7	130.8
82.5°	85.0	87.6	88.8	88.6	85.4
85°	46.2	47.1	49.3	49.8	48.1
87.5°	17.9	19.1	19.6	21.1	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)