

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: P489141

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3STD-50-120-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: P489141
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-24-2-INS-A19156-LD4-3STD-50-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

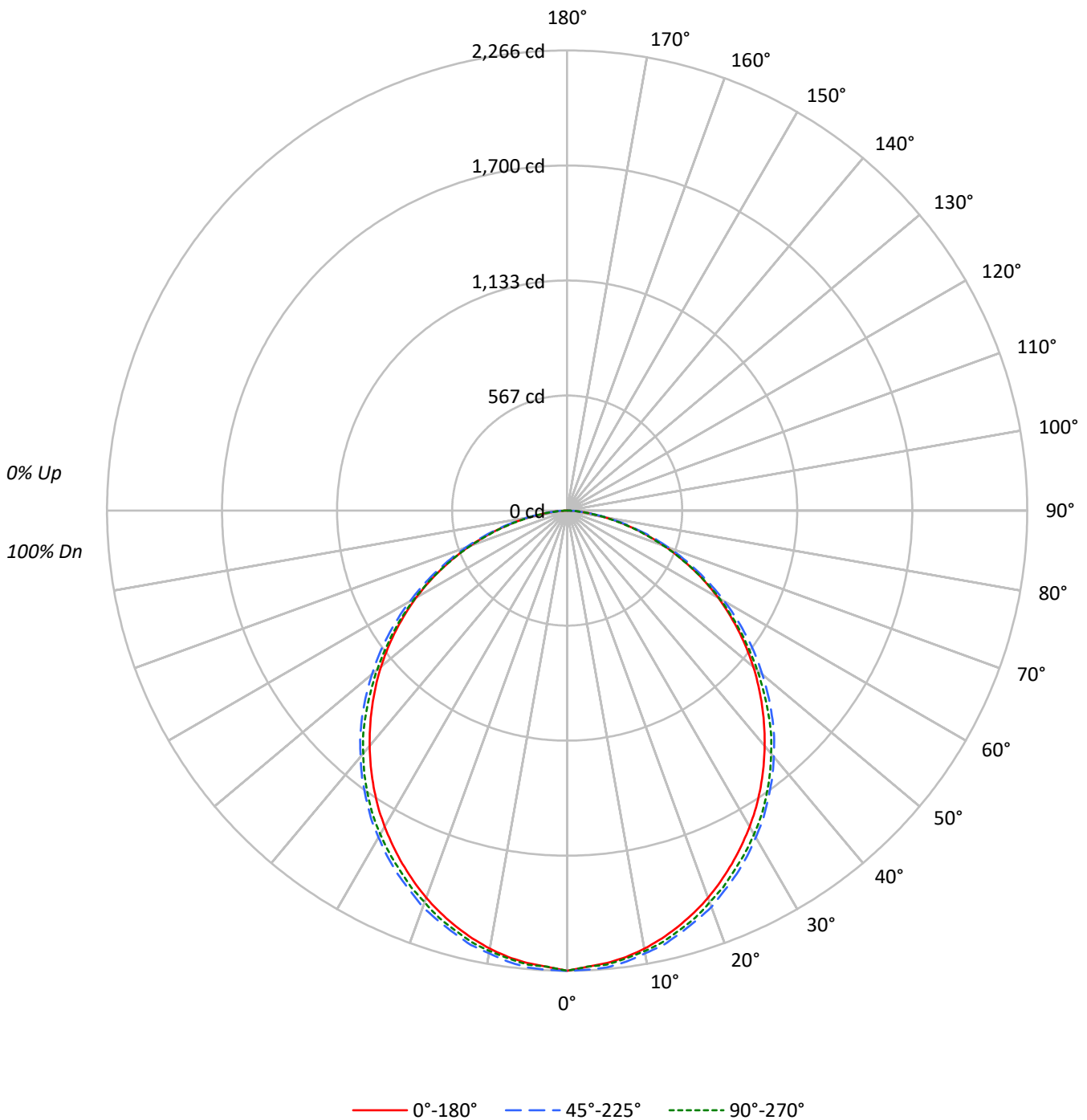
Lumens per Lamp: N/A
Luminaire Lumens: 5958.5 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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

TEST NUMBER: P489141

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-3STD-50-120-EDD

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°	6099	6099	6099
5°	6042	6099	6062
10°	5987	6048	6019
15°	5904	5999	5957
20°	5811	5949	5878
25°	5698	5864	5796
30°	5583	5772	5720
35°	5457	5674	5621
40°	5315	5560	5489
45°	5166	5427	5324
50°	5011	5253	5116
55°	4829	5055	4900
60°	4624	4815	4667
65°	4357	4524	4360
70°	4009	4171	3965
75°	3531	3690	3477
80°	2868	2994	2836
85°	1998	2130	2078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.4	3.6
10°-20°	604.9	10.2
20°-30°	902.1	15.1
30°-40°	1069.0	17.9
40°-50°	1081.7	18.2
50°-60°	944.7	15.9
60°-70°	690.4	11.6
70°-80°	367.3	6.2
80°-90°	84.9	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°	1720.5	28.9
0°-40°	2789.5	46.8
0°-60°	4815.9	80.8
0°-90°	5958.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5958.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2266	2266	2266	2266	2266	
5°	2237	2241	2258	2263	2244	212
15°	2119	2134	2154	2166	2138	597
25°	1919	1943	1975	1982	1952	884
35°	1661	1687	1727	1739	1711	1039
45°	1358	1382	1426	1427	1399	1047
55°	1029	1050	1078	1062	1044	920
65°	684	698	710	696	685	677
75°	340	347	355	342	334	361
85°	65	66	69	70	67	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2266.4	2266.4	2266.4	2266.4	2266.4
2.5°	2248.7	2256.0	2263.6	2266.9	2248.5
5°	2236.9	2241.1	2257.9	2263.1	2244.0
7.5°	2217.5	2223.9	2240.2	2242.6	2224.1
10°	2191.1	2202.4	2213.3	2225.1	2202.6
12.5°	2157.3	2172.7	2191.1	2193.2	2176.2
15°	2119.3	2133.5	2153.5	2166.5	2138.4
17.5°	2076.8	2090.5	2116.5	2118.8	2101.8
20°	2029.3	2046.3	2077.5	2082.9	2052.5
22.5°	1975.5	1998.4	2024.4	2029.6	2007.1
25°	1919.1	1942.7	1974.8	1982.1	1952.1
27.5°	1860.0	1882.7	1918.8	1924.0	1898.7
30°	1796.7	1818.0	1857.7	1866.4	1840.7
32.5°	1732.5	1753.8	1797.7	1805.0	1780.0
35°	1661.2	1687.2	1727.1	1739.1	1711.0
37.5°	1588.5	1613.7	1659.1	1669.9	1639.7
40°	1513.1	1538.2	1582.8	1591.8	1562.7
42.5°	1436.2	1461.2	1508.9	1510.3	1486.2
45°	1357.5	1381.6	1426.0	1427.2	1399.1
47.5°	1277.7	1302.0	1341.7	1337.2	1310.8
50°	1197.0	1220.1	1254.8	1245.8	1222.0
52.5°	1113.4	1135.8	1168.6	1154.0	1131.5
55°	1029.3	1050.1	1077.5	1061.9	1044.4
57.5°	944.5	965.5	986.6	970.7	955.6
60°	859.1	877.5	894.7	878.6	867.1
62.5°	772.2	788.0	802.9	787.5	776.6
65°	684.3	698.2	710.5	696.4	684.8
67.5°	596.9	608.8	620.1	605.4	593.4
70°	509.6	519.7	530.1	515.0	503.9
72.5°	423.4	432.4	441.6	426.9	417.2
75°	339.6	347.4	354.9	341.9	334.4
77.5°	259.5	266.1	271.3	263.1	255.7
80°	185.1	190.1	193.2	189.9	183.0
82.5°	119.0	122.6	124.2	124.0	119.5
85°	64.7	65.9	69.0	69.7	67.3
87.5°	25.0	26.7	27.4	29.5	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)