

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: P489583

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-40-120-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: P489583
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
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

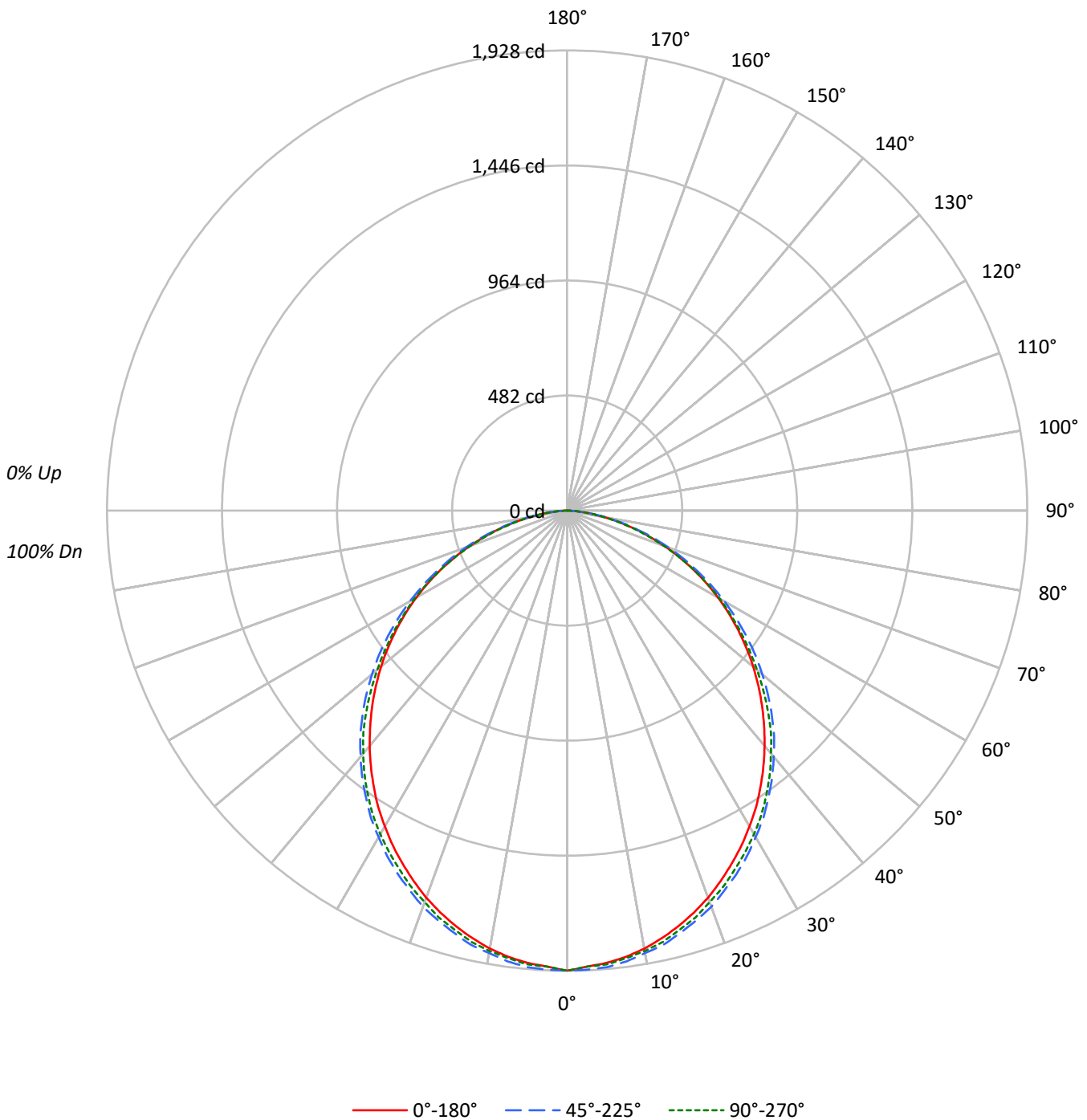
Lumens per Lamp: N/A
Luminaire Lumens: 5067.5 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P489583

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1HI-40-120-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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2593	2593	2593
5°	2569	2594	2578
10°	2546	2572	2559
15°	2511	2551	2533
20°	2471	2530	2499
25°	2423	2493	2465
30°	2374	2455	2432
35°	2321	2413	2390
40°	2260	2364	2334
45°	2197	2308	2264
50°	2131	2234	2175
55°	2054	2150	2084
60°	1966	2048	1984
65°	1853	1924	1854
70°	1705	1773	1686
75°	1501	1569	1478
80°	1220	1273	1206
85°	849	905	883



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.5	3.6
10°-20°	514.4	10.2
20°-30°	767.2	15.1
30°-40°	909.2	17.9
40°-50°	920.0	18.2
50°-60°	803.5	15.9
60°-70°	587.1	11.6
70°-80°	312.4	6.2
80°-90°	72.2	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°	1463.2	28.9
0°-40°	2372.4	46.8
0°-60°	4095.8	80.8
0°-90°	5067.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5067.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1928	1928	1928	1928	1928	
5°	1902	1906	1920	1925	1908	180
15°	1802	1814	1832	1842	1819	508
25°	1632	1652	1680	1686	1660	752
35°	1413	1435	1469	1479	1455	884
45°	1154	1175	1213	1214	1190	891
55°	875	893	916	903	888	783
65°	582	594	604	592	582	576
75°	289	295	302	291	284	307
85°	55	56	59	59	57	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1927.5	1927.5	1927.5	1927.5	1927.5
2.5°	1912.4	1918.7	1925.1	1927.9	1912.2
5°	1902.4	1906.0	1920.3	1924.7	1908.4
7.5°	1885.9	1891.3	1905.2	1907.2	1891.5
10°	1863.4	1873.1	1882.3	1892.4	1873.3
12.5°	1834.7	1847.8	1863.4	1865.2	1850.8
15°	1802.4	1814.4	1831.5	1842.5	1818.7
17.5°	1766.2	1777.9	1800.0	1802.0	1787.5
20°	1725.9	1740.3	1766.8	1771.5	1745.6
22.5°	1680.1	1699.6	1721.7	1726.1	1707.0
25°	1632.1	1652.2	1679.5	1685.7	1660.2
27.5°	1581.9	1601.2	1631.9	1636.3	1614.8
30°	1528.1	1546.1	1579.9	1587.3	1565.4
32.5°	1473.4	1491.5	1528.9	1535.1	1513.8
35°	1412.8	1434.9	1468.8	1479.1	1455.2
37.5°	1350.9	1372.4	1411.0	1420.2	1394.5
40°	1286.9	1308.2	1346.1	1353.7	1329.0
42.5°	1221.4	1242.7	1283.3	1284.5	1264.0
45°	1154.5	1175.0	1212.8	1213.8	1189.9
47.5°	1086.7	1107.3	1141.1	1137.3	1114.8
50°	1018.0	1037.7	1067.2	1059.5	1039.3
52.5°	946.9	966.0	993.9	981.4	962.3
55°	875.4	893.1	916.4	903.1	888.2
57.5°	803.3	821.2	839.0	825.6	812.7
60°	730.6	746.3	760.9	747.3	737.4
62.5°	656.7	670.1	682.8	669.7	660.5
65°	582.0	593.8	604.3	592.2	582.4
67.5°	507.7	517.7	527.4	514.9	504.7
70°	433.4	442.0	450.8	438.0	428.6
72.5°	360.1	367.7	375.5	363.1	354.9
75°	288.8	295.4	301.8	290.8	284.4
77.5°	220.7	226.3	230.7	223.7	217.5
80°	157.4	161.7	164.3	161.5	155.6
82.5°	101.2	104.2	105.6	105.4	101.6
85°	55.0	56.0	58.6	59.2	57.2
87.5°	21.3	22.7	23.3	25.1	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)