

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: P489628

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2LO-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: P489628
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-LD4-2LO-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

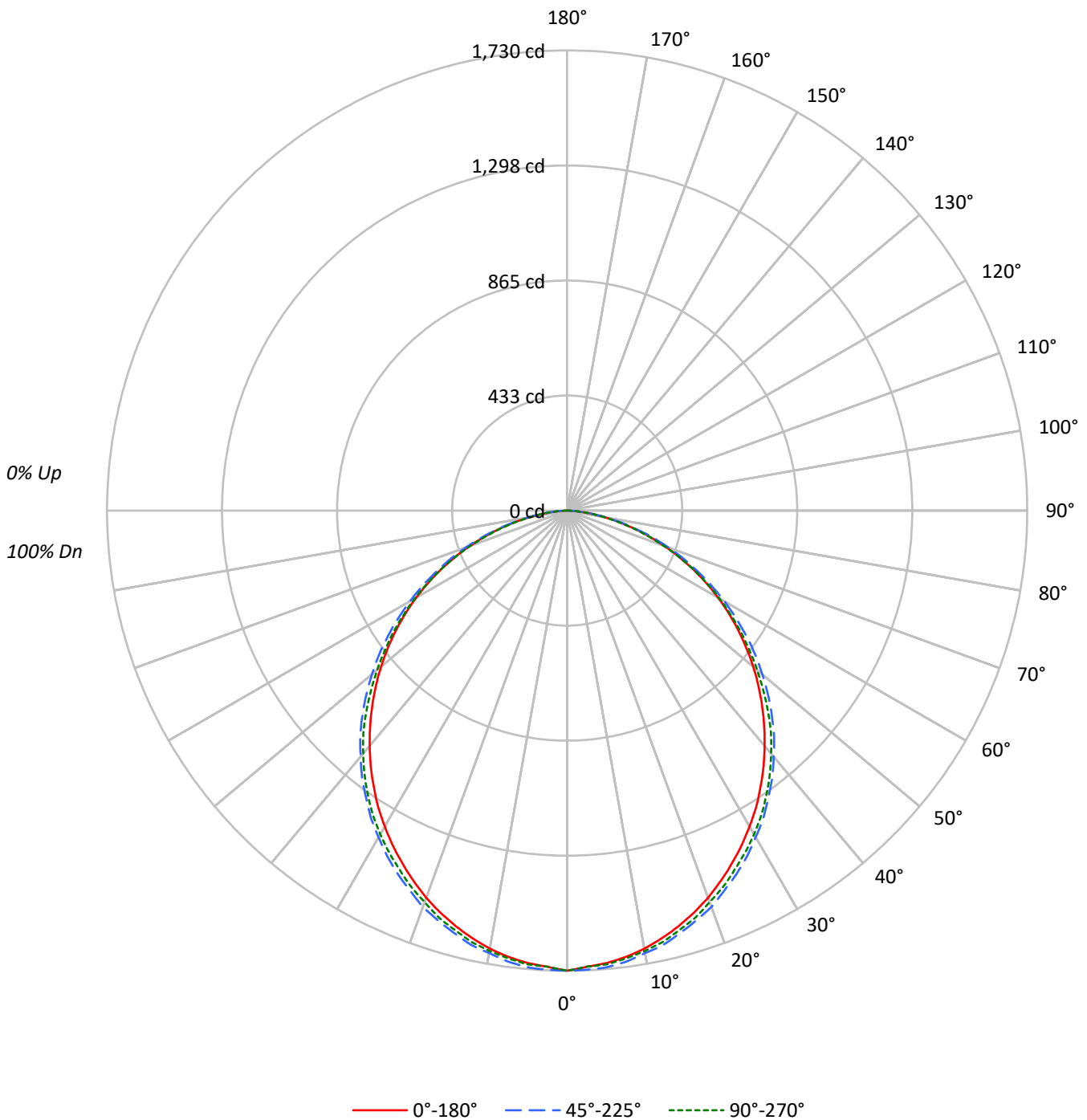
Lumens per Lamp: N/A
Luminaire Lumens: 4548.1 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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: P489628

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2LO-35-120-EDD-90

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	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°	2328	2328	2328
5°	2306	2328	2313
10°	2285	2308	2297
15°	2253	2290	2274
20°	2218	2270	2243
25°	2175	2238	2212
30°	2131	2203	2183
35°	2083	2165	2145
40°	2029	2122	2095
45°	1972	2071	2032
50°	1912	2005	1952
55°	1843	1929	1870
60°	1764	1838	1781
65°	1663	1727	1664
70°	1530	1592	1513
75°	1347	1408	1327
80°	1095	1142	1082
85°	763	812	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.9	3.6
10°-20°	461.7	10.2
20°-30°	688.6	15.1
30°-40°	816.0	17.9
40°-50°	825.7	18.2
50°-60°	721.1	15.9
60°-70°	526.9	11.6
70°-80°	280.4	6.2
80°-90°	64.8	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°	1313.2	28.9
0°-40°	2129.2	46.8
0°-60°	3676.0	80.8
0°-90°	4548.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4548.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1730	1730	1730	1730	1730	
5°	1707	1711	1723	1727	1713	162
15°	1618	1628	1644	1654	1632	456
25°	1465	1483	1507	1513	1490	675
35°	1268	1288	1318	1328	1306	793
45°	1036	1055	1088	1089	1068	799
55°	786	802	822	810	797	702
65°	522	533	542	532	523	517
75°	259	265	271	261	255	276
85°	49	50	53	53	51	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1729.9	1729.9	1729.9	1729.9	1729.9
2.5°	1716.4	1722.0	1727.8	1730.3	1716.2
5°	1707.4	1710.6	1723.4	1727.4	1712.8
7.5°	1692.6	1697.5	1709.9	1711.7	1697.7
10°	1672.4	1681.1	1689.4	1698.4	1681.3
12.5°	1646.7	1658.4	1672.4	1674.1	1661.1
15°	1617.6	1628.5	1643.8	1653.7	1632.2
17.5°	1585.2	1595.7	1615.5	1617.3	1604.3
20°	1549.0	1562.0	1585.7	1589.9	1566.6
22.5°	1507.9	1525.4	1545.2	1549.2	1532.0
25°	1464.8	1482.8	1507.3	1512.9	1490.0
27.5°	1419.7	1437.0	1464.6	1468.6	1449.3
30°	1371.4	1387.7	1417.9	1424.6	1405.0
32.5°	1322.4	1338.6	1372.2	1377.7	1358.6
35°	1268.0	1287.8	1318.3	1327.5	1306.0
37.5°	1212.5	1231.8	1266.4	1274.7	1251.6
40°	1155.0	1174.1	1208.1	1215.0	1192.8
42.5°	1096.2	1115.3	1151.7	1152.8	1134.4
45°	1036.2	1054.6	1088.5	1089.4	1067.9
47.5°	975.3	993.8	1024.1	1020.7	1000.5
50°	913.6	931.3	957.8	950.9	932.7
52.5°	849.8	867.0	892.0	880.8	863.7
55°	785.7	801.5	822.4	810.5	797.2
57.5°	721.0	737.0	753.0	741.0	729.4
60°	655.7	669.8	682.9	670.7	661.8
62.5°	589.4	601.5	612.8	601.1	592.8
65°	522.3	533.0	542.3	531.5	522.7
67.5°	455.6	464.7	473.3	462.1	452.9
70°	389.0	396.7	404.6	393.1	384.6
72.5°	323.2	330.0	337.0	325.9	318.5
75°	259.2	265.1	270.9	261.0	255.2
77.5°	198.1	203.1	207.1	200.8	195.2
80°	141.3	145.1	147.4	144.9	139.7
82.5°	90.8	93.5	94.8	94.6	91.2
85°	49.4	50.3	52.6	53.2	51.4
87.5°	19.1	20.4	20.9	22.5	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)