

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: P489580

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1HI-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: P489580
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-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

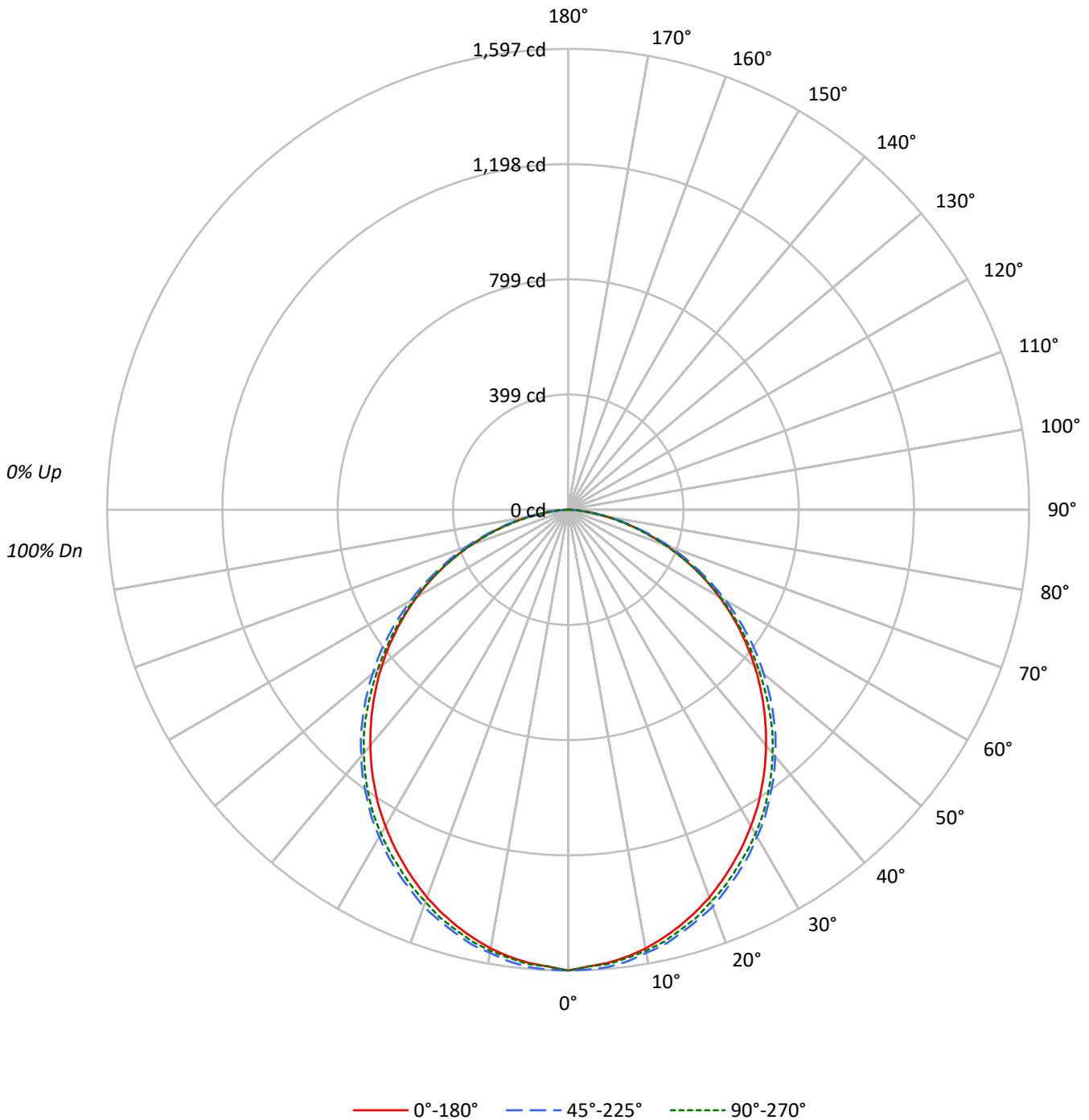
Lumens per Lamp: N/A
Luminaire Lumens: 4198.3 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2149	2149	2149
5°	2129	2149	2135
10°	2109	2131	2120
15°	2080	2114	2099
20°	2047	2096	2071
25°	2007	2066	2042
30°	1967	2034	2015
35°	1923	1999	1980
40°	1873	1959	1934
45°	1820	1912	1876
50°	1765	1851	1802
55°	1701	1781	1726
60°	1629	1696	1644
65°	1535	1594	1536
70°	1412	1469	1397
75°	1243	1300	1225
80°	1010	1055	999
85°	704	750	732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.4	3.6
10°-20°	426.2	10.2
20°-30°	635.6	15.1
30°-40°	753.2	17.9
40°-50°	762.2	18.2
50°-60°	665.6	15.9
60°-70°	486.4	11.6
70°-80°	258.8	6.2
80°-90°	59.8	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°	1212.2	28.9
0°-40°	1965.4	46.8
0°-60°	3393.2	80.8
0°-90°	4198.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4198.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1576	1579	1591	1595	1581	149
15°	1493	1503	1517	1526	1507	421
25°	1352	1369	1391	1397	1375	623
35°	1170	1189	1217	1225	1206	732
45°	956	974	1005	1006	986	738
55°	725	740	759	748	736	648
65°	482	492	501	491	482	477
75°	239	245	250	241	236	254
85°	46	46	49	49	47	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1596.9	1596.9	1596.9	1596.9	1596.9
2.5°	1584.4	1589.6	1594.9	1597.2	1584.2
5°	1576.1	1579.1	1590.9	1594.6	1581.1
7.5°	1562.4	1566.9	1578.4	1580.1	1567.1
10°	1543.8	1551.8	1559.4	1567.8	1552.0
12.5°	1520.0	1530.8	1543.8	1545.3	1533.3
15°	1493.2	1503.2	1517.4	1526.5	1506.7
17.5°	1463.3	1472.9	1491.2	1492.9	1480.9
20°	1429.8	1441.8	1463.8	1467.6	1446.1
22.5°	1391.9	1408.0	1426.3	1430.0	1414.2
25°	1352.1	1368.8	1391.4	1396.6	1375.4
27.5°	1310.5	1326.5	1352.0	1355.6	1337.8
30°	1266.0	1280.9	1308.9	1315.0	1296.9
32.5°	1220.7	1235.7	1266.6	1271.8	1254.1
35°	1170.5	1188.8	1216.9	1225.4	1205.6
37.5°	1119.2	1137.0	1169.0	1176.6	1155.3
40°	1066.1	1083.8	1115.2	1121.5	1101.1
42.5°	1011.9	1029.5	1063.1	1064.1	1047.2
45°	956.5	973.5	1004.7	1005.6	985.8
47.5°	900.3	917.4	945.4	942.2	923.6
50°	843.4	859.7	884.1	877.8	861.0
52.5°	784.5	800.3	823.4	813.1	797.3
55°	725.2	739.9	759.2	748.2	735.9
57.5°	665.5	680.3	695.1	684.0	673.3
60°	605.3	618.3	630.4	619.1	610.9
62.5°	544.1	555.2	565.7	554.9	547.2
65°	482.2	492.0	500.6	490.6	482.5
67.5°	420.6	428.9	436.9	426.6	418.1
70°	359.0	366.2	373.5	362.9	355.0
72.5°	298.3	304.6	311.1	300.8	294.0
75°	239.2	244.7	250.1	240.9	235.6
77.5°	182.8	187.5	191.2	185.3	180.2
80°	130.4	133.9	136.1	133.8	128.9
82.5°	83.9	86.3	87.5	87.3	84.2
85°	45.6	46.4	48.6	49.1	47.4
87.5°	17.6	18.8	19.3	20.8	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)