

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: P489155

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4LO-20-120-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: P489155
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-LD4-4LO-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

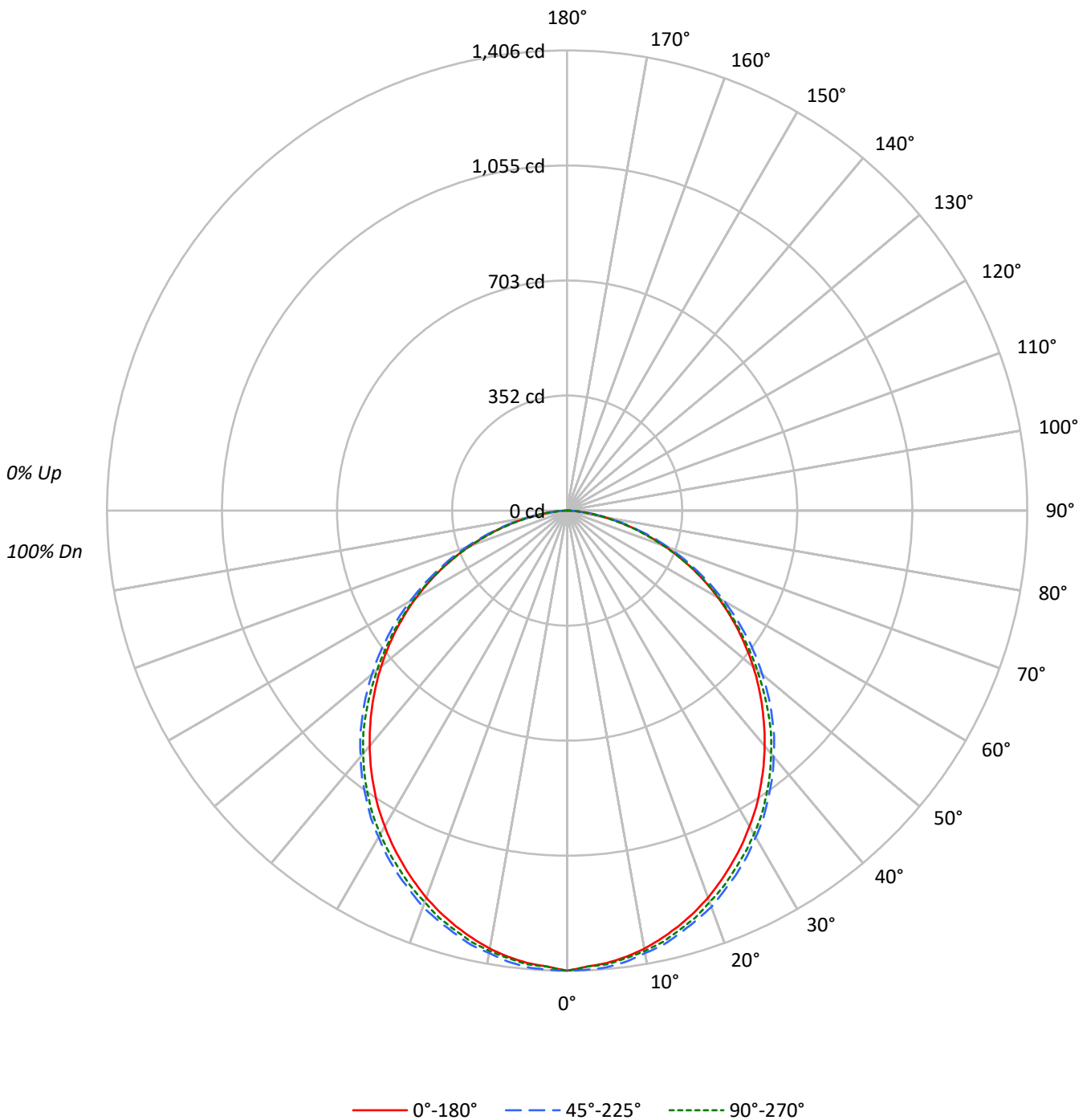
Lumens per Lamp: N/A
Luminaire Lumens: 3696.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P489155

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4LO-20-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489155

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4LO-20-120-EDD

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°	3783	3783	3783
5°	3748	3783	3760
10°	3714	3751	3733
15°	3662	3721	3695
20°	3605	3690	3646
25°	3534	3637	3595
30°	3463	3581	3548
35°	3385	3519	3486
40°	3297	3449	3405
45°	3205	3366	3303
50°	3108	3258	3173
55°	2996	3135	3039
60°	2868	2987	2894
65°	2703	2806	2705
70°	2487	2587	2460
75°	2190	2288	2156
80°	1779	1857	1759
85°	1238	1321	1288



TEST NUMBER: P489155

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4LO-20-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	3.6
10°-20°	375.2	10.2
20°-30°	559.6	15.1
30°-40°	663.1	17.9
40°-50°	671.0	18.2
50°-60°	586.0	15.9
60°-70°	428.2	11.6
70°-80°	227.9	6.2
80°-90°	52.7	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°	1067.2	28.9
0°-40°	1730.3	46.8
0°-60°	2987.3	80.8
0°-90°	3696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3696.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1406	1406	1406	1406	1406	
5°	1388	1390	1401	1404	1392	132
15°	1315	1323	1336	1344	1326	371
25°	1190	1205	1225	1230	1211	548
35°	1030	1046	1071	1079	1061	644
45°	842	857	884	885	868	650
55°	638	651	668	659	648	571
65°	424	433	441	432	425	420
75°	211	216	220	212	207	224
85°	40	41	43	43	42	51
90°	0	0	0	0	0	



TEST NUMBER: P489155

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-4LO-20-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1405.8	1405.8	1405.8	1405.8	1405.8
2.5°	1394.8	1399.4	1404.1	1406.1	1394.7
5°	1387.5	1390.2	1400.6	1403.8	1391.9
7.5°	1375.5	1379.5	1389.6	1391.0	1379.6
10°	1359.1	1366.1	1372.9	1380.2	1366.3
12.5°	1338.2	1347.7	1359.1	1360.4	1349.9
15°	1314.6	1323.4	1335.8	1343.9	1326.4
17.5°	1288.2	1296.7	1312.8	1314.3	1303.7
20°	1258.8	1269.3	1288.7	1292.0	1273.1
22.5°	1225.4	1239.6	1255.7	1258.9	1245.0
25°	1190.4	1205.0	1224.9	1229.5	1210.9
27.5°	1153.8	1167.8	1190.2	1193.4	1177.8
30°	1114.5	1127.7	1152.3	1157.7	1141.7
32.5°	1074.7	1087.8	1115.1	1119.6	1104.1
35°	1030.4	1046.5	1071.3	1078.8	1061.3
37.5°	985.3	1001.0	1029.1	1035.8	1017.1
40°	938.6	954.1	981.8	987.4	969.3
42.5°	890.8	906.4	935.9	936.8	921.9
45°	842.1	857.0	884.5	885.3	867.8
47.5°	792.6	807.6	832.2	829.5	813.1
50°	742.5	756.8	778.3	772.8	758.0
52.5°	690.6	704.5	724.9	715.8	701.9
55°	638.5	651.4	668.3	658.7	647.8
57.5°	585.9	598.9	612.0	602.1	592.8
60°	532.9	544.3	555.0	545.0	537.8
62.5°	479.0	488.8	498.0	488.5	481.7
65°	424.5	433.1	440.7	431.9	424.8
67.5°	370.3	377.6	384.6	375.6	368.1
70°	316.1	322.4	328.8	319.5	312.6
72.5°	262.6	268.2	273.9	264.8	258.8
75°	210.6	215.5	220.1	212.1	207.4
77.5°	161.0	165.1	168.3	163.2	158.6
80°	114.8	117.9	119.8	117.8	113.5
82.5°	73.8	76.0	77.0	76.9	74.1
85°	40.1	40.9	42.8	43.2	41.7
87.5°	15.5	16.6	17.0	18.3	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)