

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: P489060

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-27-120-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: P489060
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-LD4-1STD-27-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

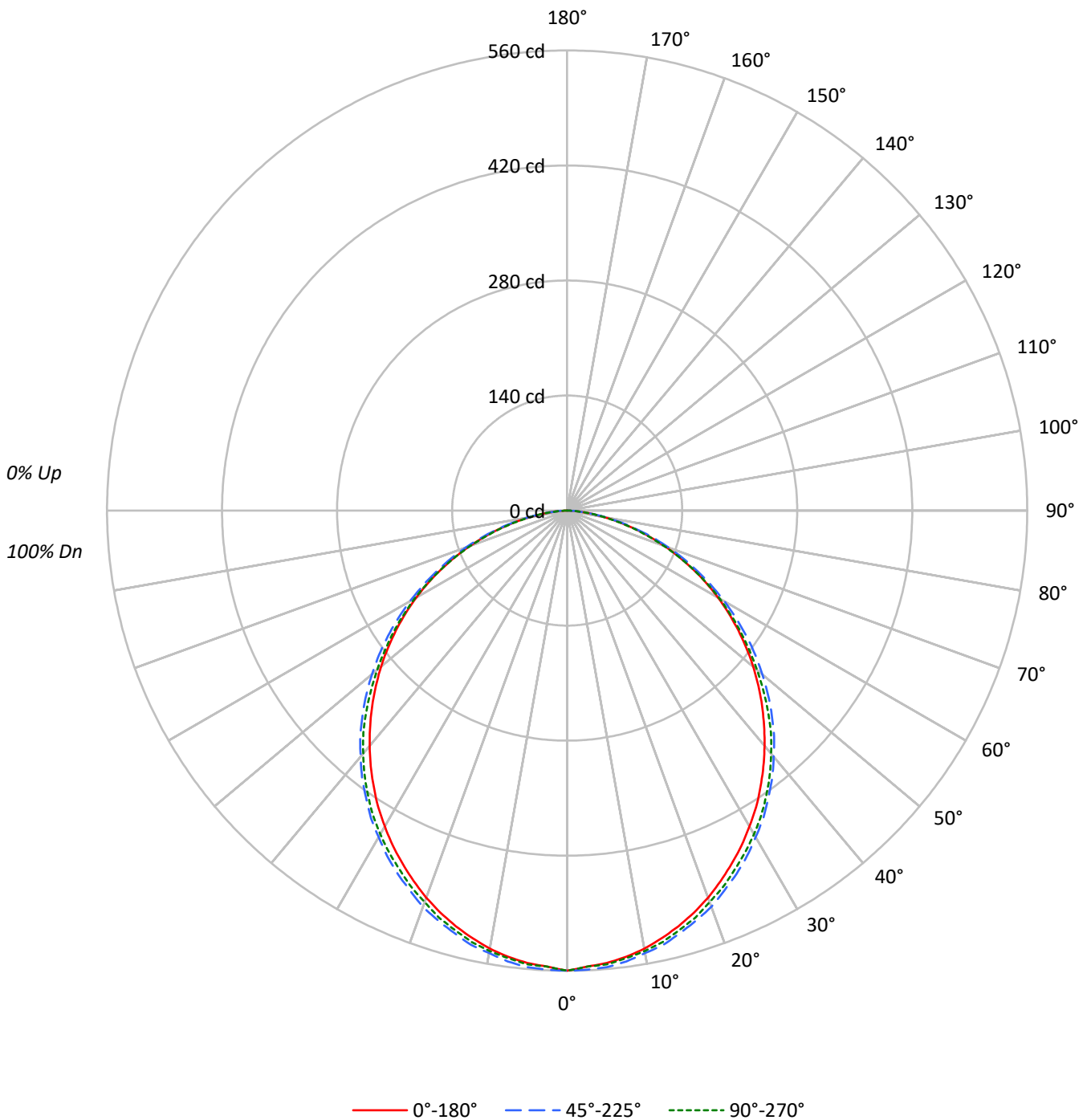
Lumens per Lamp: N/A
Luminaire Lumens: 1472.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P489060

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489060

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD-90

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°	1507	1507	1507
5°	1493	1507	1498
10°	1479	1494	1487
15°	1459	1482	1472
20°	1436	1470	1452
25°	1408	1449	1432
30°	1379	1426	1413
35°	1348	1402	1389
40°	1313	1374	1356
45°	1276	1341	1315
50°	1238	1298	1264
55°	1193	1249	1210
60°	1142	1189	1153
65°	1077	1117	1077
70°	991	1031	980
75°	872	912	859
80°	708	739	700
85°	494	525	513



TEST NUMBER: P489060

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	3.6
10°-20°	149.4	10.2
20°-30°	222.9	15.1
30°-40°	264.1	17.9
40°-50°	267.2	18.2
50°-60°	233.4	15.9
60°-70°	170.6	11.6
70°-80°	90.7	6.2
80°-90°	21.0	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°	425.0	28.9
0°-40°	689.1	46.8
0°-60°	1189.7	80.8
0°-90°	1472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	553	554	558	559	554	52
15°	524	527	532	535	528	148
25°	474	480	488	490	482	218
35°	410	417	427	430	423	257
45°	335	341	352	353	346	259
55°	254	259	266	262	258	227
65°	169	172	176	172	169	167
75°	84	86	88	84	83	89
85°	16	16	17	17	17	20
90°	0	0	0	0	0	



TEST NUMBER: P489060

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1STD-27-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	559.9	559.9	559.9	559.9	559.9
2.5°	555.5	557.3	559.2	560.0	555.5
5°	552.6	553.7	557.8	559.1	554.4
7.5°	547.8	549.4	553.4	554.0	549.5
10°	541.3	544.1	546.8	549.7	544.1
12.5°	532.9	536.7	541.3	541.8	537.6
15°	523.6	527.1	532.0	535.2	528.3
17.5°	513.1	516.4	522.9	523.4	519.2
20°	501.3	505.5	513.2	514.6	507.0
22.5°	488.0	493.7	500.1	501.4	495.8
25°	474.1	479.9	487.9	489.7	482.3
27.5°	459.5	465.1	474.0	475.3	469.1
30°	443.9	449.1	458.9	461.1	454.7
32.5°	428.0	433.3	444.1	445.9	439.7
35°	410.4	416.8	426.7	429.6	422.7
37.5°	392.4	398.7	409.9	412.5	405.1
40°	373.8	380.0	391.0	393.2	386.1
42.5°	354.8	361.0	372.8	373.1	367.2
45°	335.4	341.3	352.3	352.6	345.6
47.5°	315.6	321.7	331.5	330.3	323.8
50°	295.7	301.4	310.0	307.8	301.9
52.5°	275.0	280.6	288.7	285.1	279.5
55°	254.3	259.4	266.2	262.3	258.0
57.5°	233.3	238.5	243.7	239.8	236.1
60°	212.2	216.8	221.0	217.1	214.2
62.5°	190.8	194.7	198.3	194.5	191.9
65°	169.1	172.5	175.5	172.0	169.2
67.5°	147.5	150.4	153.2	149.6	146.6
70°	125.9	128.4	131.0	127.2	124.5
72.5°	104.6	106.8	109.1	105.5	103.1
75°	83.9	85.8	87.7	84.5	82.6
77.5°	64.1	65.7	67.0	65.0	63.2
80°	45.7	47.0	47.7	46.9	45.2
82.5°	29.4	30.3	30.7	30.6	29.5
85°	16.0	16.3	17.0	17.2	16.6
87.5°	6.2	6.6	6.8	7.3	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)