

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: P489593

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1LO-35-120-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: P489593  
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-LD4-1LO-35-120-EDD  
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

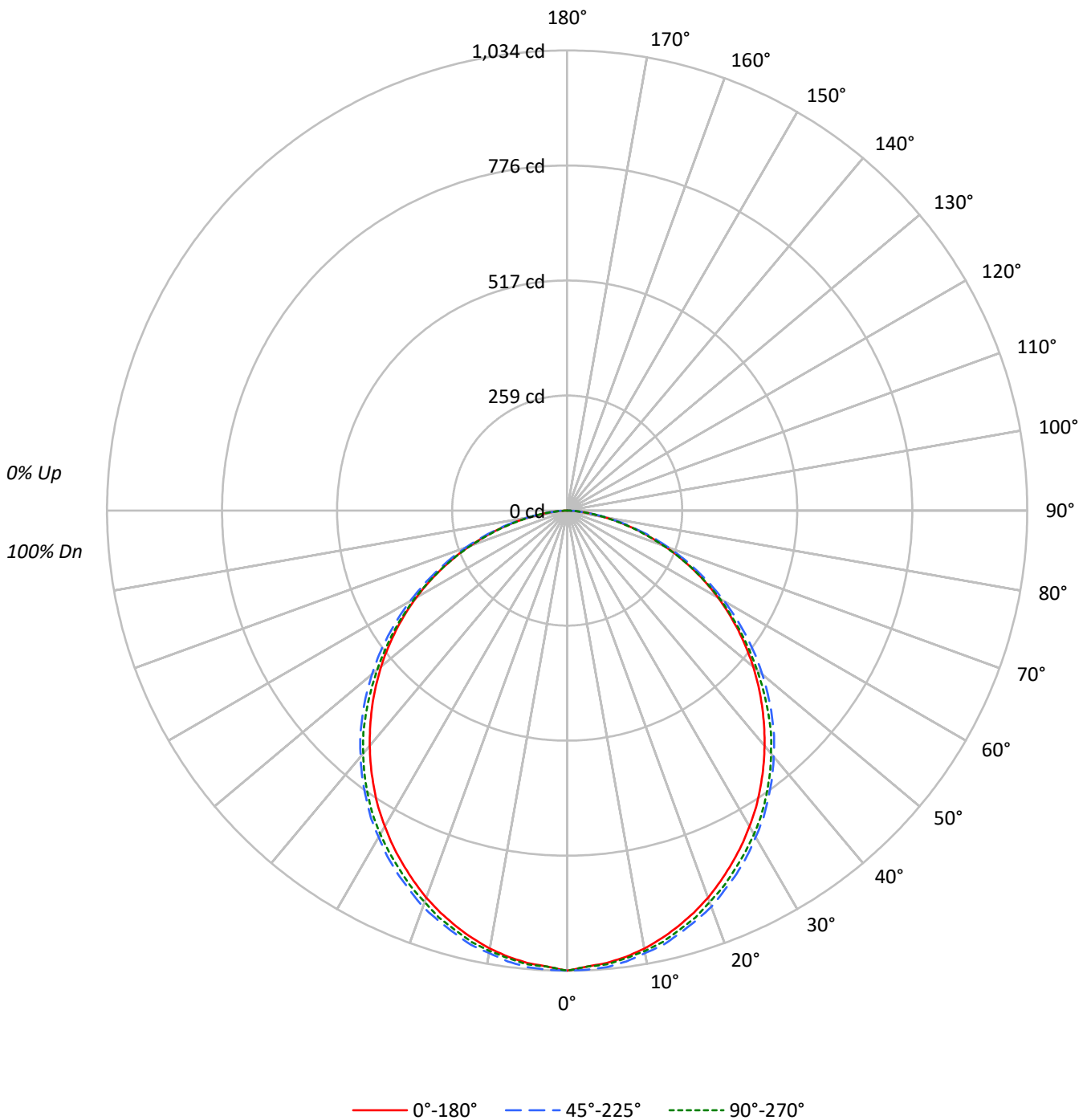
Lumens per Lamp: N/A  
Luminaire Lumens: 2717.7 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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: P489593

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1LO-35-120-EDD

### Luminous Intensity Polar Plot





TEST NUMBER: P489593

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1LO-35-120-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	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°	1391	1391	1391
5°	1378	1391	1382
10°	1365	1379	1373
15°	1346	1368	1359
20°	1325	1357	1340
25°	1299	1337	1322
30°	1273	1316	1304
35°	1245	1294	1282
40°	1212	1268	1252
45°	1178	1238	1214
50°	1143	1198	1167
55°	1101	1153	1118
60°	1054	1098	1064
65°	994	1032	994
70°	914	951	904
75°	805	842	793
80°	654	683	647
85°	455	485	474



TEST NUMBER: P489593

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1LO-35-120-EDD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.4	3.6
10°-20°	275.9	10.2
20°-30°	411.5	15.1
30°-40°	487.6	17.9
40°-50°	493.4	18.2
50°-60°	430.9	15.9
60°-70°	314.9	11.6
70°-80°	167.5	6.2
80°-90°	38.7	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°	784.7	28.9
0°-40°	1272.3	46.8
0°-60°	2196.6	80.8
0°-90°	2717.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2717.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	1020	1022	1030	1032	1024	97
15°	967	973	982	988	975	273
25°	875	886	901	904	890	403
35°	758	770	788	793	780	474
45°	619	630	650	651	638	478
55°	470	479	491	484	476	420
65°	312	318	324	318	312	309
75°	155	158	162	156	152	165
85°	30	30	31	32	31	37
90°	0	0	0	0	0	



TEST NUMBER: P489593

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-1LO-35-120-EDD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1033.7	1033.7	1033.7	1033.7	1033.7
2.5°	1025.6	1029.0	1032.4	1033.9	1025.5
5°	1020.3	1022.2	1029.8	1032.2	1023.5
7.5°	1011.4	1014.3	1021.8	1022.8	1014.4
10°	999.4	1004.5	1009.5	1014.9	1004.6
12.5°	984.0	991.0	999.4	1000.3	992.6
15°	966.6	973.1	982.2	988.2	975.3
17.5°	947.2	953.5	965.3	966.4	958.6
20°	925.6	933.3	947.6	950.0	936.1
22.5°	901.0	911.5	923.3	925.7	915.5
25°	875.3	886.1	900.7	904.0	890.4
27.5°	848.4	858.7	875.2	877.5	866.0
30°	819.5	829.2	847.3	851.3	839.5
32.5°	790.2	799.9	819.9	823.3	811.9
35°	757.7	769.5	787.7	793.2	780.4
37.5°	724.5	736.0	756.7	761.7	747.9
40°	690.1	701.6	721.9	726.0	712.8
42.5°	655.0	666.5	688.2	688.9	677.9
45°	619.2	630.2	650.4	650.9	638.1
47.5°	582.8	593.9	612.0	609.9	597.8
50°	545.9	556.5	572.3	568.2	557.4
52.5°	507.8	518.0	533.0	526.3	516.1
55°	469.5	478.9	491.4	484.3	476.4
57.5°	430.8	440.4	450.0	442.8	435.9
60°	391.8	400.2	408.1	400.8	395.5
62.5°	352.2	359.4	366.2	359.2	354.2
65°	312.1	318.5	324.1	317.6	312.3
67.5°	272.3	277.7	282.8	276.1	270.7
70°	232.4	237.1	241.8	234.9	229.8
72.5°	193.1	197.2	201.4	194.7	190.3
75°	154.9	158.4	161.9	156.0	152.5
77.5°	118.4	121.4	123.7	120.0	116.6
80°	84.4	86.7	88.1	86.6	83.5
82.5°	54.3	55.9	56.7	56.5	54.5
85°	29.5	30.0	31.4	31.8	30.7
87.5°	11.4	12.2	12.5	13.5	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)