

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: P488673

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-50-120-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: P488673
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-12-4-INS-A19156-LD4-1STD-50-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

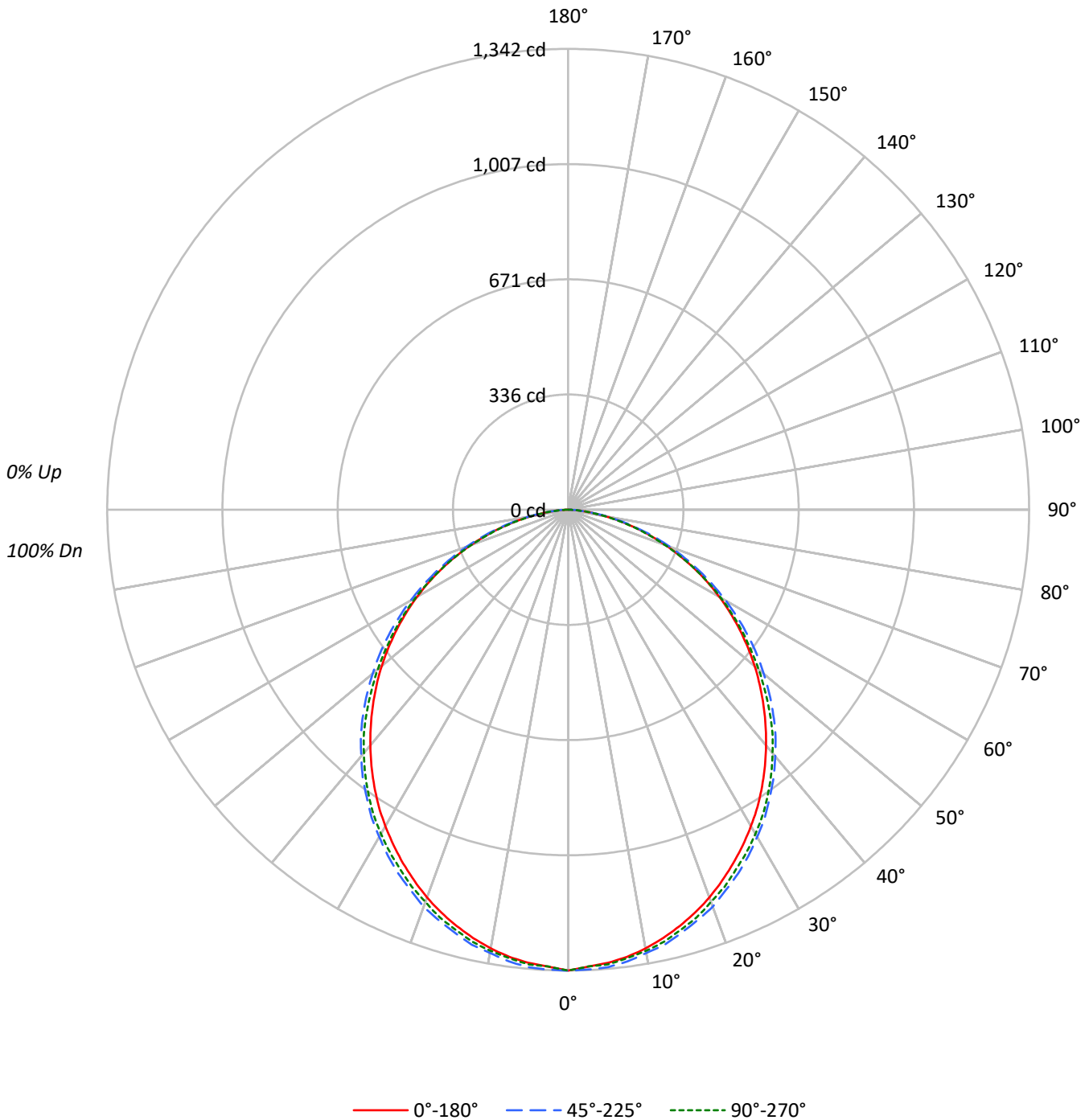
Lumens per Lamp: N/A
Luminaire Lumens: 3528.6 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P488673

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1STD-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P488673

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1STD-50-120-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°	3612	3612	3612
5°	3578	3612	3590
10°	3545	3581	3564
15°	3496	3553	3528
20°	3442	3523	3481
25°	3374	3472	3432
30°	3306	3418	3387
35°	3232	3360	3329
40°	3148	3293	3251
45°	3059	3214	3153
50°	2967	3111	3030
55°	2860	2994	2902
60°	2738	2851	2764
65°	2580	2679	2582
70°	2375	2470	2348
75°	2091	2185	2059
80°	1698	1773	1680
85°	1183	1260	1232



TEST NUMBER: P488673

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1STD-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	3.6
10°-20°	358.2	10.2
20°-30°	534.2	15.1
30°-40°	633.1	17.9
40°-50°	640.6	18.2
50°-60°	559.5	15.9
60°-70°	408.8	11.6
70°-80°	217.5	6.2
80°-90°	50.3	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°	1018.8	28.9
0°-40°	1651.9	46.8
0°-60°	2852.0	80.8
0°-90°	3528.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3528.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1342	1342	1342	1342	1342	
5°	1325	1327	1337	1340	1329	126
15°	1255	1263	1275	1283	1266	354
25°	1136	1150	1170	1174	1156	524
35°	984	999	1023	1030	1013	615
45°	804	818	844	845	828	620
55°	610	622	638	629	618	545
65°	405	414	421	412	406	401
75°	201	206	210	202	198	214
85°	38	39	41	41	40	49
90°	0	0	0	0	0	



TEST NUMBER: P488673

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1STD-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1342.2	1342.2	1342.2	1342.2	1342.2
2.5°	1331.7	1336.0	1340.5	1342.4	1331.5
5°	1324.7	1327.2	1337.1	1340.2	1328.9
7.5°	1313.2	1317.0	1326.6	1328.0	1317.1
10°	1297.5	1304.3	1310.7	1317.7	1304.4
12.5°	1277.5	1286.6	1297.5	1298.8	1288.7
15°	1255.0	1263.4	1275.3	1283.0	1266.4
17.5°	1229.9	1238.0	1253.4	1254.8	1244.7
20°	1201.8	1211.8	1230.3	1233.5	1215.5
22.5°	1169.9	1183.4	1198.8	1201.9	1188.6
25°	1136.5	1150.4	1169.5	1173.8	1156.0
27.5°	1101.5	1114.9	1136.3	1139.4	1124.4
30°	1064.0	1076.6	1100.1	1105.3	1090.0
32.5°	1026.0	1038.6	1064.6	1068.9	1054.1
35°	983.8	999.1	1022.8	1029.9	1013.3
37.5°	940.7	955.6	982.5	988.9	971.0
40°	896.1	910.9	937.3	942.6	925.4
42.5°	850.5	865.3	893.6	894.4	880.1
45°	803.9	818.2	844.5	845.2	828.5
47.5°	756.7	771.1	794.6	791.9	776.2
50°	708.8	722.5	743.1	737.8	723.7
52.5°	659.3	672.6	692.1	683.4	670.1
55°	609.5	621.9	638.1	628.8	618.5
57.5°	559.3	571.8	584.2	574.9	565.9
60°	508.7	519.6	529.8	520.3	513.5
62.5°	457.3	466.6	475.4	466.4	459.9
65°	405.2	413.5	420.8	412.4	405.5
67.5°	353.5	360.5	367.2	358.5	351.4
70°	301.8	307.8	313.9	305.0	298.4
72.5°	250.7	256.0	261.5	252.8	247.1
75°	201.1	205.7	210.2	202.5	198.0
77.5°	153.7	157.6	160.7	155.8	151.4
80°	109.6	112.6	114.4	112.4	108.4
82.5°	70.5	72.6	73.6	73.4	70.8
85°	38.3	39.0	40.8	41.3	39.9
87.5°	14.8	15.8	16.2	17.5	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)