

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: P488713

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3HI-27-120-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: P488713
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-LD4-3HI-27-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

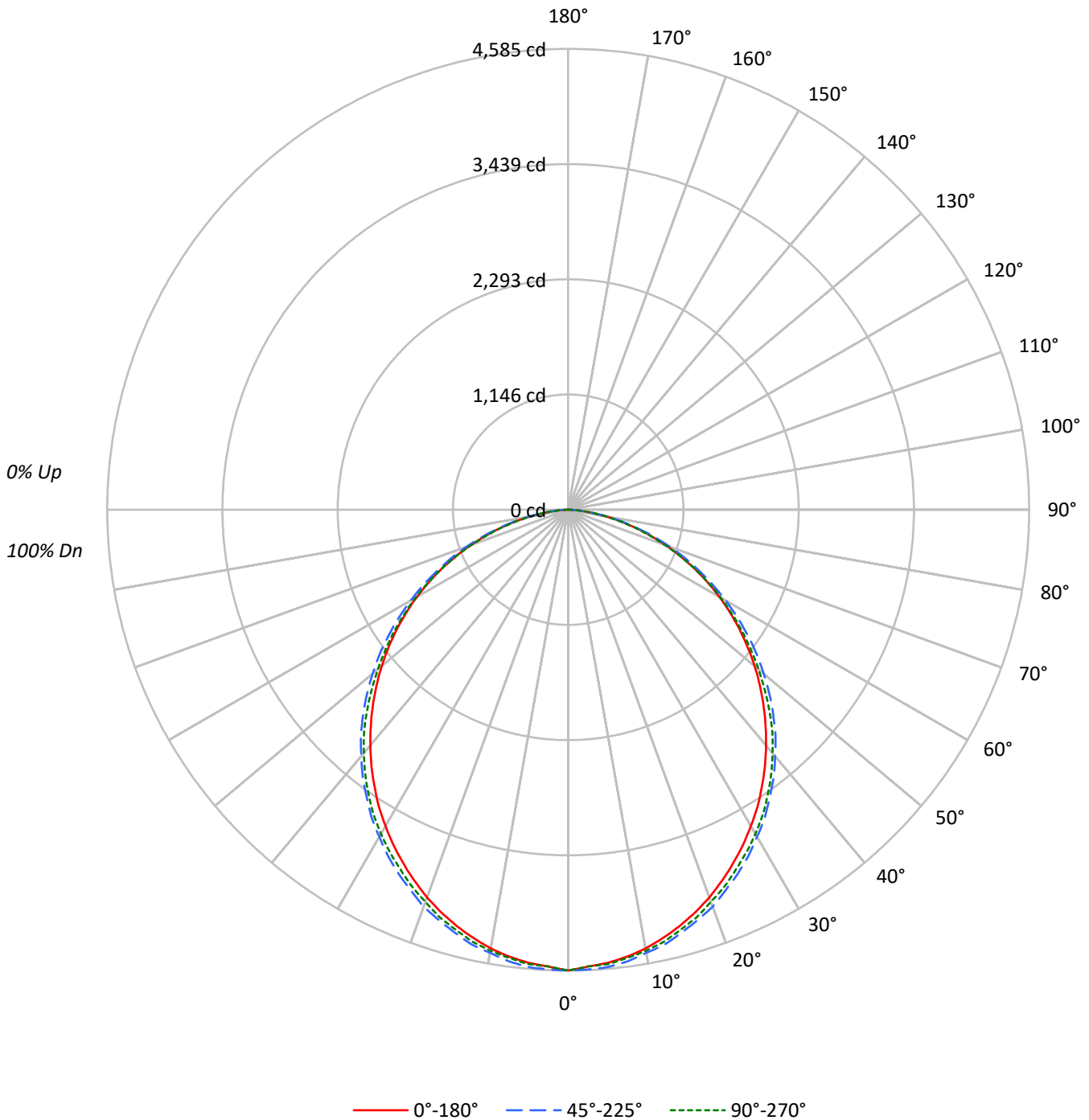
Lumens per Lamp: N/A
Luminaire Lumens: 12053.2 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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: P488713

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3HI-27-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P488713

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3HI-27-120-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°	12337	12337	12337
5°	12223	12338	12262
10°	12111	12234	12175
15°	11943	12136	12051
20°	11755	12035	11889
25°	11526	11861	11725
30°	11293	11677	11570
35°	11039	11477	11370
40°	10752	11247	11105
45°	10451	10978	10771
50°	10137	10626	10348
55°	9768	10226	9912
60°	9352	9741	9440
65°	8814	9152	8820
70°	8110	8438	8020
75°	7142	7464	7033
80°	5804	6055	5737
85°	4042	4307	4202



TEST NUMBER: P488713

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3HI-27-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	431.8	3.6
10°-20°	1223.6	10.2
20°-30°	1824.9	15.1
30°-40°	2162.5	17.9
40°-50°	2188.1	18.2
50°-60°	1911.0	15.9
60°-70°	1396.5	11.6
70°-80°	743.0	6.2
80°-90°	171.7	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°	3480.2	28.9
0°-40°	5642.8	46.8
0°-60°	9741.9	80.8
0°-90°	12053.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12053.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4585	4585	4585	4585	4585	
5°	4525	4534	4567	4578	4539	429
15°	4287	4316	4356	4383	4326	1209
25°	3882	3930	3995	4010	3949	1788
35°	3360	3413	3494	3518	3461	2101
45°	2746	2795	2885	2887	2830	2118
55°	2082	2124	2180	2148	2113	1861
65°	1384	1412	1437	1409	1385	1370
75°	687	703	718	692	676	730
85°	131	133	140	141	136	166
90°	0	0	0	0	0	



TEST NUMBER: P488713

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3HI-27-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4584.6	4584.6	4584.6	4584.6	4584.6
2.5°	4548.8	4563.6	4578.9	4585.6	4548.3
5°	4524.9	4533.5	4567.4	4577.9	4539.2
7.5°	4485.7	4498.6	4531.6	4536.4	4499.1
10°	4432.2	4455.2	4477.1	4501.0	4455.6
12.5°	4363.9	4395.0	4432.2	4436.5	4402.1
15°	4287.0	4315.7	4356.3	4382.6	4325.7
17.5°	4201.0	4228.7	4281.3	4286.1	4251.7
20°	4105.0	4139.4	4202.5	4213.5	4151.8
22.5°	3996.1	4042.5	4095.0	4105.5	4060.1
25°	3882.0	3929.7	3994.7	4009.5	3948.8
27.5°	3762.6	3808.4	3881.5	3892.0	3840.9
30°	3634.5	3677.5	3757.8	3775.4	3723.4
32.5°	3504.6	3547.6	3636.4	3651.3	3600.6
35°	3360.4	3412.9	3493.6	3518.0	3461.1
37.5°	3213.2	3264.3	3356.1	3378.0	3316.9
40°	3060.9	3111.5	3201.8	3219.9	3161.2
42.5°	2905.1	2955.8	3052.3	3055.1	3006.4
45°	2746.1	2794.8	2884.6	2887.0	2830.2
47.5°	2584.6	2633.8	2714.1	2705.0	2651.5
50°	2421.3	2468.1	2538.3	2520.1	2471.9
52.5°	2252.2	2297.6	2364.0	2334.3	2289.0
55°	2082.1	2124.2	2179.6	2148.0	2112.7
57.5°	1910.7	1953.2	1995.7	1963.7	1933.1
60°	1737.7	1775.0	1809.9	1777.4	1754.0
62.5°	1562.0	1594.0	1624.1	1593.0	1571.0
65°	1384.3	1412.4	1437.3	1408.6	1385.2
67.5°	1207.5	1231.4	1254.3	1224.7	1200.4
70°	1030.8	1051.3	1072.4	1041.8	1019.3
72.5°	856.4	874.6	893.2	863.6	844.0
75°	686.9	702.6	717.9	691.7	676.4
77.5°	525.0	538.3	548.8	532.1	517.3
80°	374.5	384.5	390.7	384.0	370.2
82.5°	240.7	247.9	251.3	250.8	241.7
85°	130.9	133.3	139.5	140.9	136.1
87.5°	50.6	54.0	55.4	59.7	54.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)