

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: P489091

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-40-120-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: P489091
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-LD4-2LO-40-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

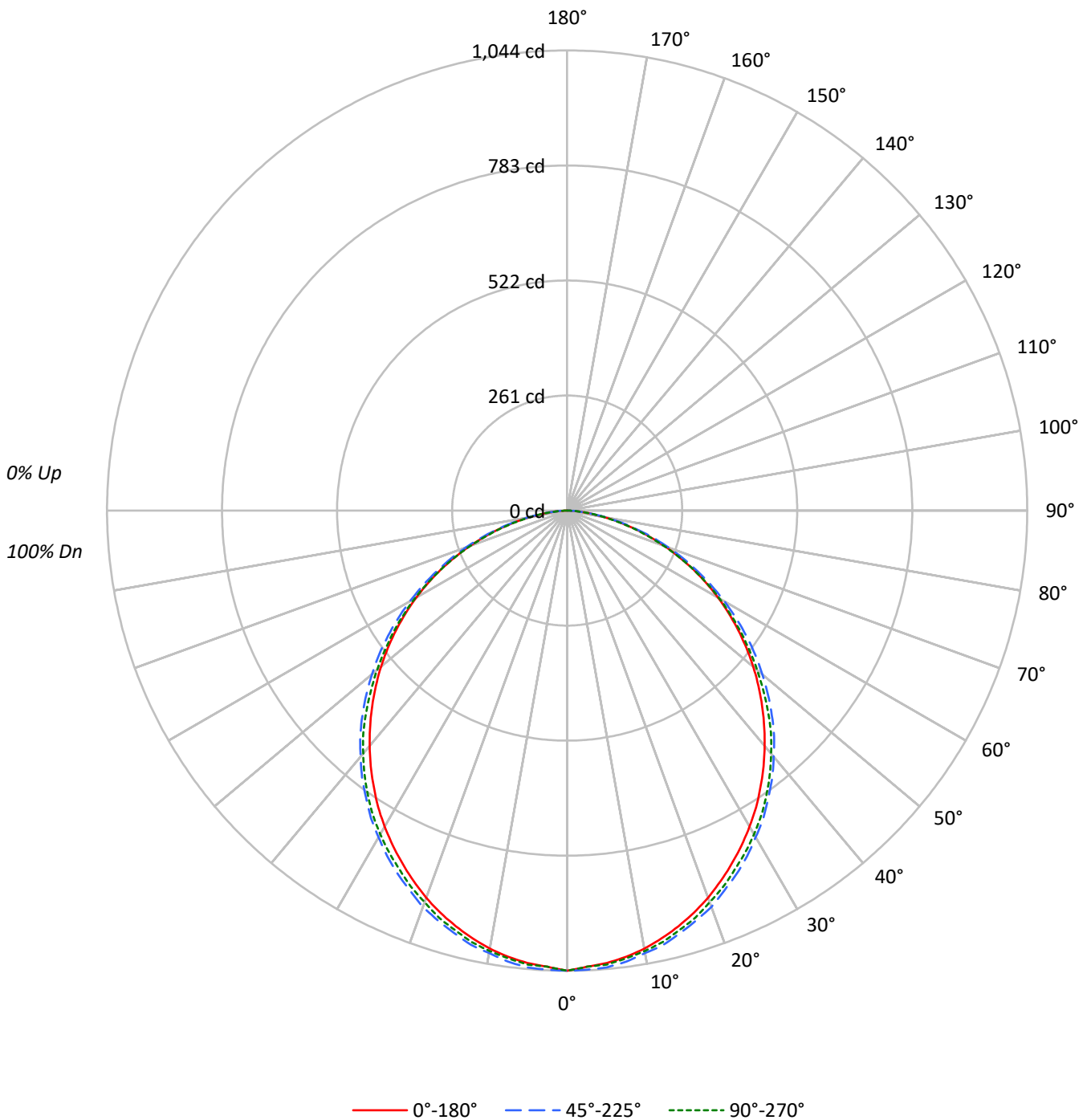
Lumens per Lamp: N/A
Luminaire Lumens: 2744.8 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P489091

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2LO-40-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489091

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2LO-40-120-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°	2809	2809	2809
5°	2783	2810	2792
10°	2758	2786	2773
15°	2720	2764	2744
20°	2677	2741	2708
25°	2625	2701	2670
30°	2572	2659	2635
35°	2514	2614	2589
40°	2448	2561	2529
45°	2380	2500	2453
50°	2308	2420	2357
55°	2225	2328	2257
60°	2130	2218	2150
65°	2007	2084	2008
70°	1847	1921	1826
75°	1626	1700	1601
80°	1322	1379	1306
85°	920	982	957



TEST NUMBER: P489091

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2LO-40-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	3.6
10°-20°	278.6	10.2
20°-30°	415.6	15.1
30°-40°	492.5	17.9
40°-50°	498.3	18.2
50°-60°	435.2	15.9
60°-70°	318.0	11.6
70°-80°	169.2	6.2
80°-90°	39.1	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°	792.5	28.9
0°-40°	1285.0	46.8
0°-60°	2218.5	80.8
0°-90°	2744.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2744.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1030	1032	1040	1042	1034	98
15°	976	983	992	998	985	275
25°	884	895	910	913	899	407
35°	765	777	796	801	788	479
45°	625	636	657	657	644	482
55°	474	484	496	489	481	424
65°	315	322	327	321	315	312
75°	156	160	164	158	154	166
85°	30	30	32	32	31	38
90°	0	0	0	0	0	



TEST NUMBER: P489091

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-2LO-40-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1044.0	1044.0	1044.0	1044.0	1044.0
2.5°	1035.9	1039.2	1042.7	1044.2	1035.8
5°	1030.4	1032.4	1040.1	1042.5	1033.7
7.5°	1021.5	1024.4	1032.0	1033.0	1024.6
10°	1009.3	1014.5	1019.5	1025.0	1014.7
12.5°	993.8	1000.8	1009.3	1010.3	1002.5
15°	976.3	982.8	992.0	998.0	985.1
17.5°	956.7	963.0	975.0	976.0	968.2
20°	934.8	942.6	957.0	959.5	945.5
22.5°	910.0	920.6	932.5	934.9	924.6
25°	884.0	894.9	909.7	913.1	899.2
27.5°	856.8	867.3	883.9	886.3	874.7
30°	827.7	837.5	855.7	859.8	847.9
32.5°	798.1	807.9	828.1	831.5	819.9
35°	765.2	777.2	795.6	801.1	788.2
37.5°	731.7	743.4	764.3	769.3	755.3
40°	697.0	708.6	729.1	733.3	719.9
42.5°	661.6	673.1	695.1	695.7	684.6
45°	625.3	636.4	656.9	657.4	644.5
47.5°	588.6	599.8	618.1	616.0	603.8
50°	551.4	562.0	578.0	573.9	562.9
52.5°	512.9	523.2	538.3	531.6	521.3
55°	474.2	483.7	496.3	489.2	481.1
57.5°	435.1	444.8	454.5	447.2	440.2
60°	395.7	404.2	412.1	404.8	399.4
62.5°	355.7	363.0	369.8	362.8	357.8
65°	315.2	321.6	327.3	320.8	315.4
67.5°	275.0	280.4	285.6	278.9	273.4
70°	234.7	239.4	244.2	237.2	232.1
72.5°	195.0	199.2	203.4	196.7	192.2
75°	156.4	160.0	163.5	157.5	154.0
77.5°	119.5	122.6	125.0	121.2	117.8
80°	85.3	87.6	89.0	87.5	84.3
82.5°	54.8	56.5	57.2	57.1	55.0
85°	29.8	30.3	31.8	32.1	31.0
87.5°	11.5	12.3	12.6	13.6	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)