

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: P489595

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1LO-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: P489595
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-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

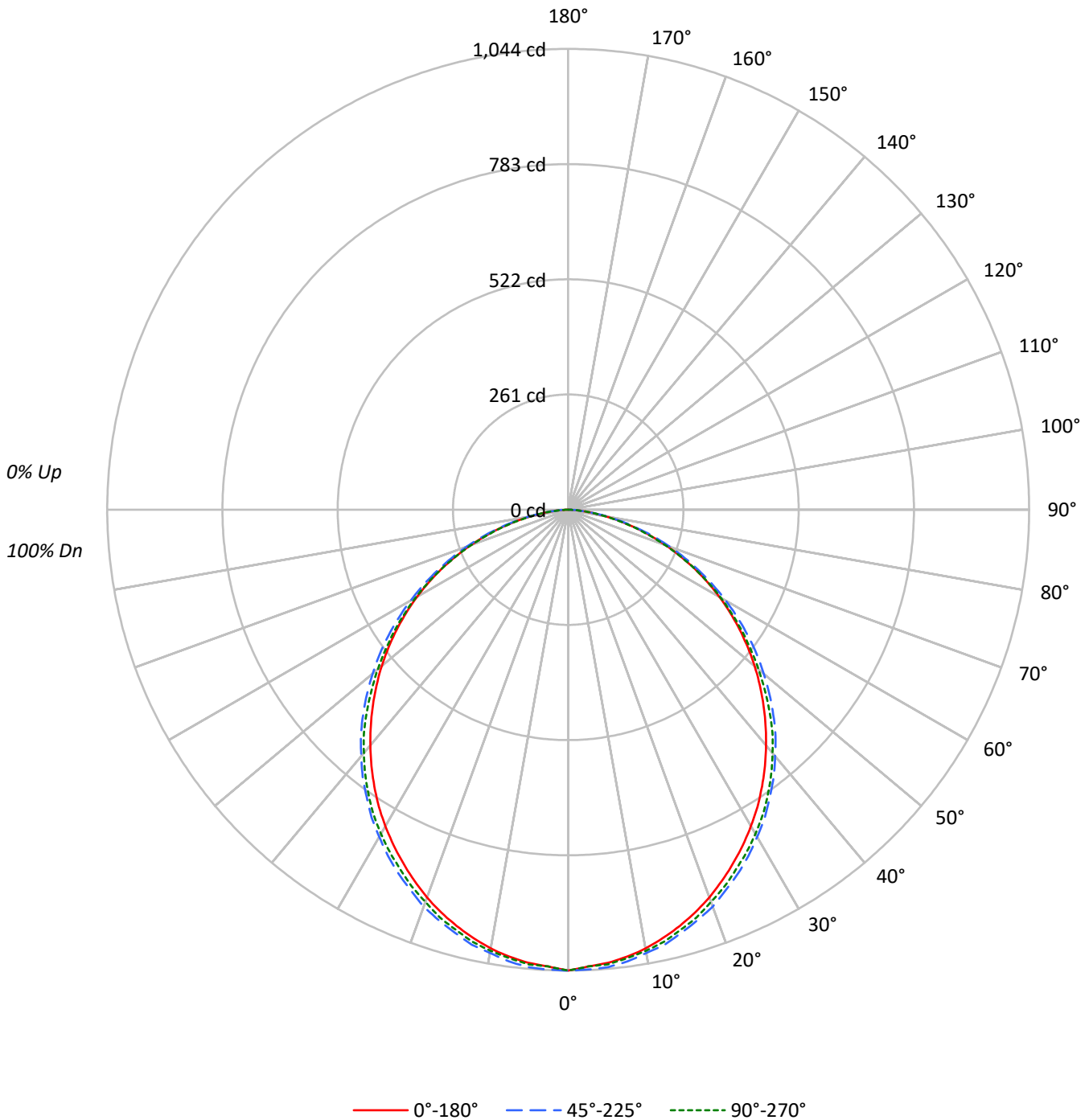
Lumens per Lamp: N/A
Luminaire Lumens: 2744.9 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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°	1405	1405	1405
5°	1392	1405	1396
10°	1379	1393	1386
15°	1360	1382	1372
20°	1338	1370	1354
25°	1312	1351	1335
30°	1286	1330	1317
35°	1257	1307	1295
40°	1224	1281	1264
45°	1190	1250	1226
50°	1154	1210	1178
55°	1112	1164	1129
60°	1065	1109	1075
65°	1004	1042	1004
70°	923	961	913
75°	813	850	801
80°	661	690	653
85°	460	491	479



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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°	792.6	28.9
0°-40°	1285.0	46.8
0°-60°	2218.6	80.8
0°-90°	2744.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2744.9	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	658	644	482
55°	474	484	496	489	481	424
65°	315	322	327	321	316	312
75°	156	160	164	158	154	166
85°	30	30	32	32	31	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1044.1	1044.1	1044.1	1044.1	1044.1
2.5°	1035.9	1039.3	1042.8	1044.3	1035.8
5°	1030.5	1032.4	1040.1	1042.5	1033.7
7.5°	1021.5	1024.5	1032.0	1033.1	1024.6
10°	1009.4	1014.6	1019.6	1025.0	1014.7
12.5°	993.8	1000.9	1009.4	1010.3	1002.5
15°	976.3	982.8	992.1	998.0	985.1
17.5°	956.7	963.0	975.0	976.1	968.2
20°	934.8	942.7	957.0	959.5	945.5
22.5°	910.0	920.6	932.6	935.0	924.6
25°	884.0	894.9	909.7	913.1	899.3
27.5°	856.9	867.3	883.9	886.3	874.7
30°	827.7	837.5	855.8	859.8	847.9
32.5°	798.1	807.9	828.1	831.5	820.0
35°	765.3	777.2	795.6	801.2	788.2
37.5°	731.8	743.4	764.3	769.3	755.4
40°	697.1	708.6	729.1	733.3	719.9
42.5°	661.6	673.1	695.1	695.8	684.7
45°	625.4	636.5	656.9	657.5	644.5
47.5°	588.6	599.8	618.1	616.0	603.8
50°	551.4	562.1	578.1	573.9	562.9
52.5°	512.9	523.2	538.3	531.6	521.3
55°	474.2	483.7	496.4	489.2	481.1
57.5°	435.1	444.8	454.5	447.2	440.2
60°	395.7	404.2	412.2	404.8	399.4
62.5°	355.7	363.0	369.8	362.8	357.8
65°	315.2	321.7	327.3	320.8	315.5
67.5°	275.0	280.4	285.7	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)