

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: P488423

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2HI-20-120-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: P488423
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-12-2-INS-A19156-LD4-2HI-20-120-EDD
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

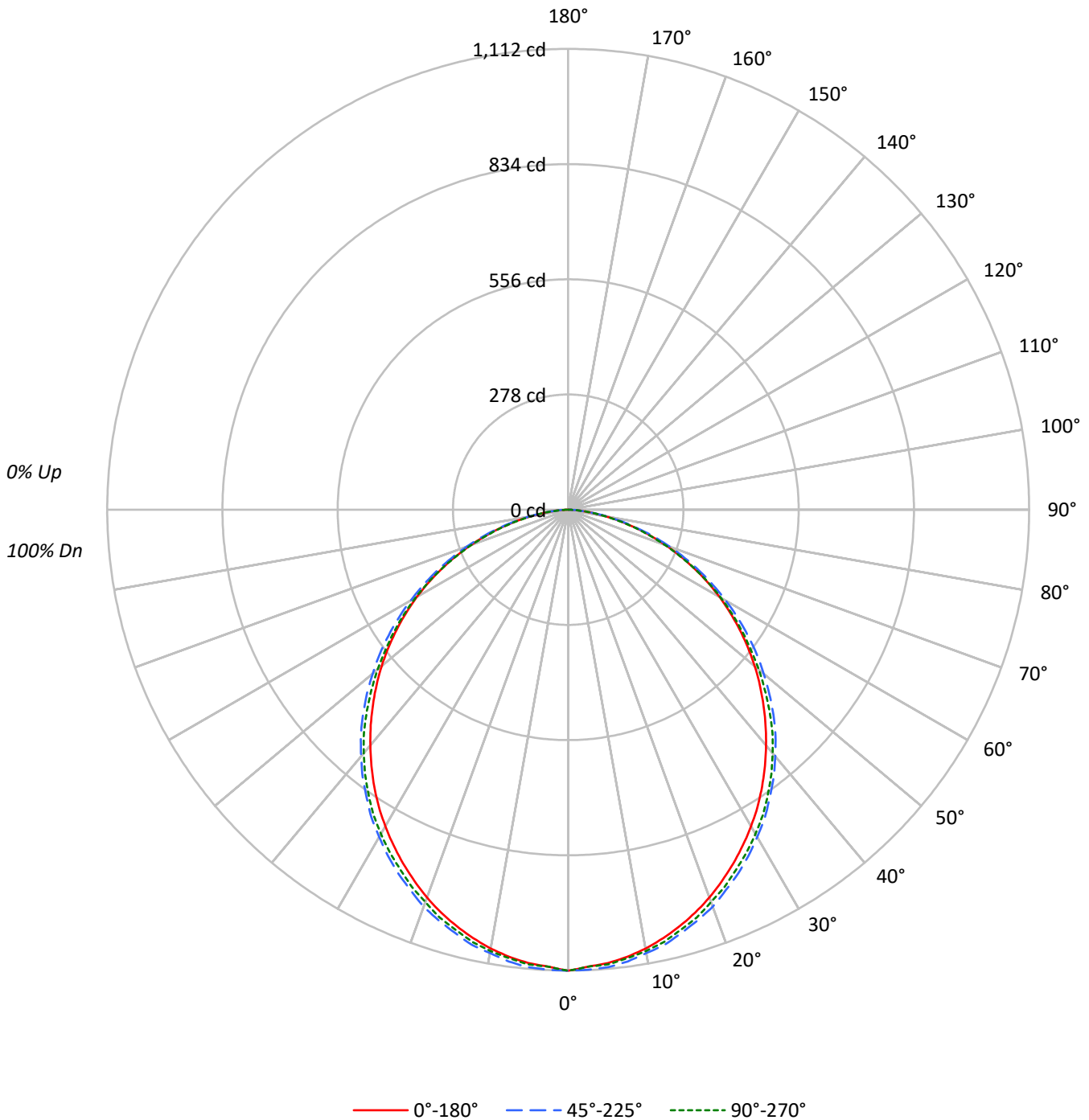
Lumens per Lamp: N/A
Luminaire Lumens: 2924.6 lumens
Efficiency: N/A
Efficacy: 67.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	5987	5987	5987
5°	5931	5987	5950
10°	5877	5937	5908
15°	5796	5889	5848
20°	5704	5840	5770
25°	5593	5756	5690
30°	5481	5666	5614
35°	5357	5570	5518
40°	5218	5458	5389
45°	5071	5327	5227
50°	4919	5157	5022
55°	4740	4963	4810
60°	4538	4726	4581
65°	4278	4441	4280
70°	3936	4094	3891
75°	3466	3622	3412
80°	2817	2938	2783
85°	1964	2087	2038



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	3.6
10°-20°	296.9	10.2
20°-30°	442.8	15.1
30°-40°	524.7	17.9
40°-50°	530.9	18.2
50°-60°	463.7	15.9
60°-70°	338.9	11.6
70°-80°	180.3	6.2
80°-90°	41.7	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°	844.5	28.9
0°-40°	1369.2	46.8
0°-60°	2363.8	80.8
0°-90°	2924.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2924.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1098	1100	1108	1111	1101	104
15°	1040	1047	1057	1063	1050	293
25°	942	954	969	973	958	434
35°	815	828	848	854	840	510
45°	666	678	700	700	687	514
55°	505	515	529	521	513	452
65°	336	343	349	342	336	332
75°	167	170	174	168	164	177
85°	32	32	34	34	33	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1112.4	1112.4	1112.4	1112.4	1112.4
2.5°	1103.7	1107.3	1111.0	1112.6	1103.6
5°	1097.9	1100.0	1108.2	1110.8	1101.4
7.5°	1088.4	1091.6	1099.5	1100.7	1091.7
10°	1075.4	1081.0	1086.3	1092.1	1081.1
12.5°	1058.9	1066.4	1075.4	1076.5	1068.1
15°	1040.2	1047.2	1057.0	1063.4	1049.6
17.5°	1019.3	1026.1	1038.8	1040.0	1031.6
20°	996.0	1004.4	1019.7	1022.4	1007.4
22.5°	969.6	980.9	993.6	996.2	985.2
25°	941.9	953.5	969.3	972.9	958.2
27.5°	912.9	924.1	941.8	944.4	932.0
30°	881.9	892.3	911.8	916.1	903.4
32.5°	850.4	860.8	882.4	885.9	873.7
35°	815.4	828.1	847.7	853.6	839.8
37.5°	779.7	792.1	814.3	819.6	804.8
40°	742.7	755.0	776.9	781.3	767.0
42.5°	704.9	717.2	740.6	741.3	729.5
45°	666.3	678.1	699.9	700.5	686.7
47.5°	627.1	639.1	658.5	656.3	643.4
50°	587.5	598.9	615.9	611.5	599.8
52.5°	546.5	557.5	573.6	566.4	555.4
55°	505.2	515.4	528.9	521.2	512.6
57.5°	463.6	473.9	484.2	476.5	469.0
60°	421.6	430.7	439.1	431.3	425.6
62.5°	379.0	386.8	394.1	386.5	381.2
65°	335.9	342.7	348.7	341.8	336.1
67.5°	293.0	298.8	304.4	297.2	291.3
70°	250.1	255.1	260.2	252.8	247.3
72.5°	207.8	212.2	216.7	209.5	204.8
75°	166.7	170.5	174.2	167.8	164.1
77.5°	127.4	130.6	133.2	129.1	125.5
80°	90.9	93.3	94.8	93.2	89.8
82.5°	58.4	60.2	61.0	60.8	58.6
85°	31.8	32.3	33.8	34.2	33.0
87.5°	12.3	13.1	13.4	14.5	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)