

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: P489037

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1HI-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: P489037
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-LD4-1HI-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

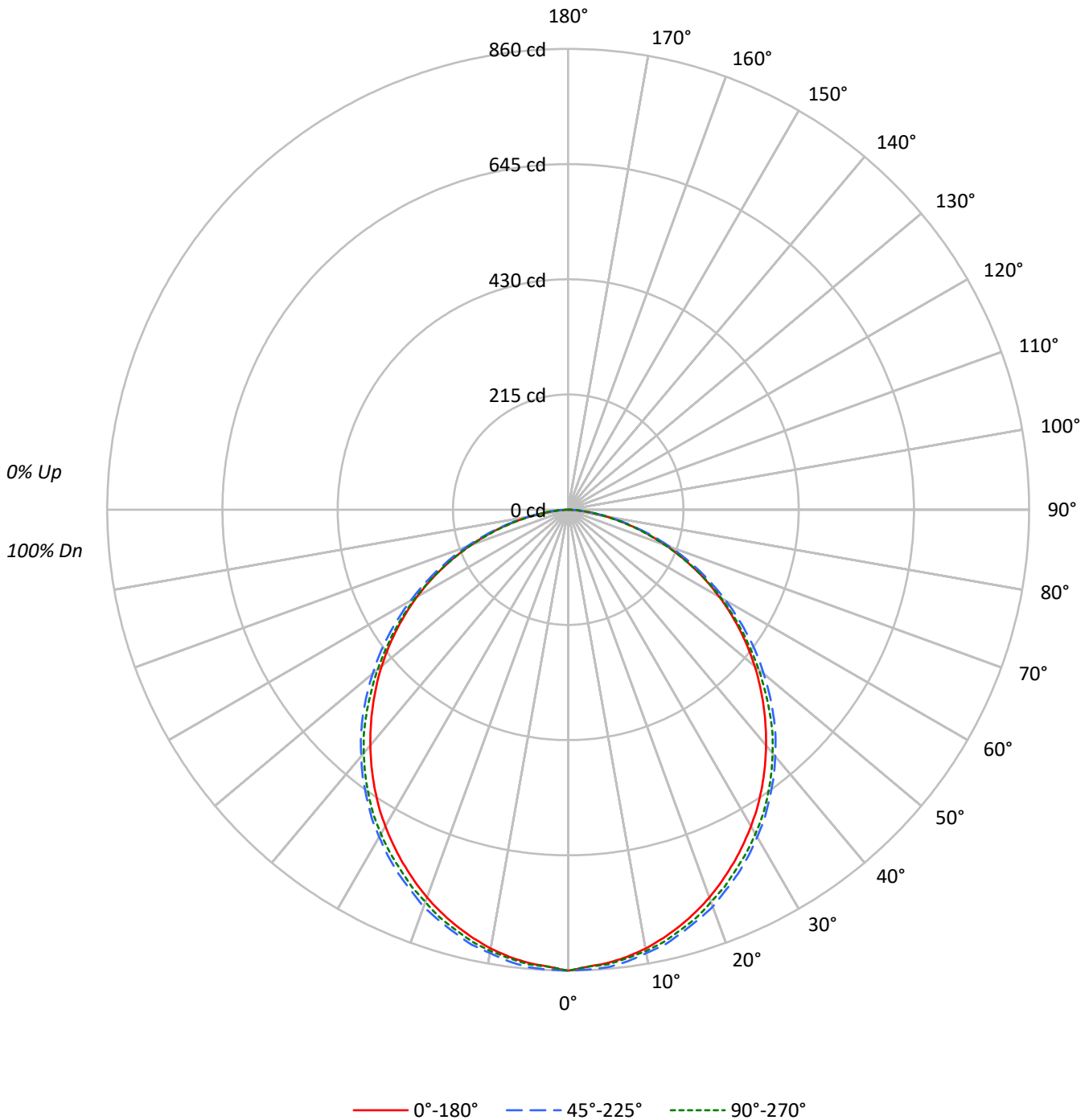
Lumens per Lamp: N/A
Luminaire Lumens: 2261.5 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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

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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°	2315	2315	2315
5°	2293	2315	2301
10°	2272	2295	2284
15°	2241	2277	2261
20°	2206	2258	2231
25°	2163	2225	2200
30°	2119	2191	2171
35°	2071	2153	2133
40°	2017	2110	2083
45°	1961	2060	2021
50°	1902	1994	1942
55°	1833	1918	1860
60°	1755	1828	1771
65°	1654	1717	1655
70°	1522	1583	1505
75°	1340	1400	1319
80°	1089	1136	1077
85°	760	809	787



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	3.6
10°-20°	229.6	10.2
20°-30°	342.4	15.1
30°-40°	405.8	17.9
40°-50°	410.5	18.2
50°-60°	358.6	15.9
60°-70°	262.0	11.6
70°-80°	139.4	6.2
80°-90°	32.2	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°	653.0	28.9
0°-40°	1058.7	46.8
0°-60°	1827.8	80.8
0°-90°	2261.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2261.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	849	851	857	859	852	81
15°	804	810	817	822	812	227
25°	728	737	750	752	741	336
35°	630	640	656	660	649	394
45°	515	524	541	542	531	397
55°	391	399	409	403	396	349
65°	260	265	270	264	260	257
75°	129	132	135	130	127	137
85°	25	25	26	26	26	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	860.2	860.2	860.2	860.2	860.2
2.5°	853.5	856.3	859.1	860.4	853.4
5°	849.0	850.6	857.0	858.9	851.7
7.5°	841.6	844.1	850.2	851.1	844.2
10°	831.6	835.9	840.0	844.5	836.0
12.5°	818.8	824.6	831.6	832.4	826.0
15°	804.4	809.7	817.4	822.3	811.6
17.5°	788.2	793.4	803.3	804.2	797.7
20°	770.2	776.7	788.5	790.6	779.0
22.5°	749.8	758.5	768.3	770.3	761.8
25°	728.4	737.3	749.5	752.3	740.9
27.5°	706.0	714.6	728.3	730.2	720.7
30°	681.9	690.0	705.1	708.4	698.6
32.5°	657.6	665.6	682.3	685.1	675.6
35°	630.5	640.4	655.5	660.1	649.4
37.5°	602.9	612.5	629.7	633.8	622.3
40°	574.3	583.8	600.7	604.1	593.1
42.5°	545.1	554.6	572.7	573.2	564.1
45°	515.2	524.4	541.2	541.7	531.0
47.5°	484.9	494.2	509.2	507.5	497.5
50°	454.3	463.1	476.3	472.8	463.8
52.5°	422.6	431.1	443.5	438.0	429.5
55°	390.7	398.6	408.9	403.0	396.4
57.5°	358.5	366.5	374.4	368.4	362.7
60°	326.0	333.0	339.6	333.5	329.1
62.5°	293.1	299.1	304.7	298.9	294.8
65°	259.7	265.0	269.7	264.3	259.9
67.5°	226.6	231.0	235.3	229.8	225.2
70°	193.4	197.3	201.2	195.5	191.3
72.5°	160.7	164.1	167.6	162.0	158.4
75°	128.9	131.8	134.7	129.8	126.9
77.5°	98.5	101.0	103.0	99.8	97.1
80°	70.3	72.1	73.3	72.1	69.5
82.5°	45.2	46.5	47.1	47.1	45.3
85°	24.6	25.0	26.2	26.4	25.5
87.5°	9.5	10.1	10.4	11.2	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)