

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: P489094

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-20-120-EDD-90**

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: P489094
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-LD4-2STD-20-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

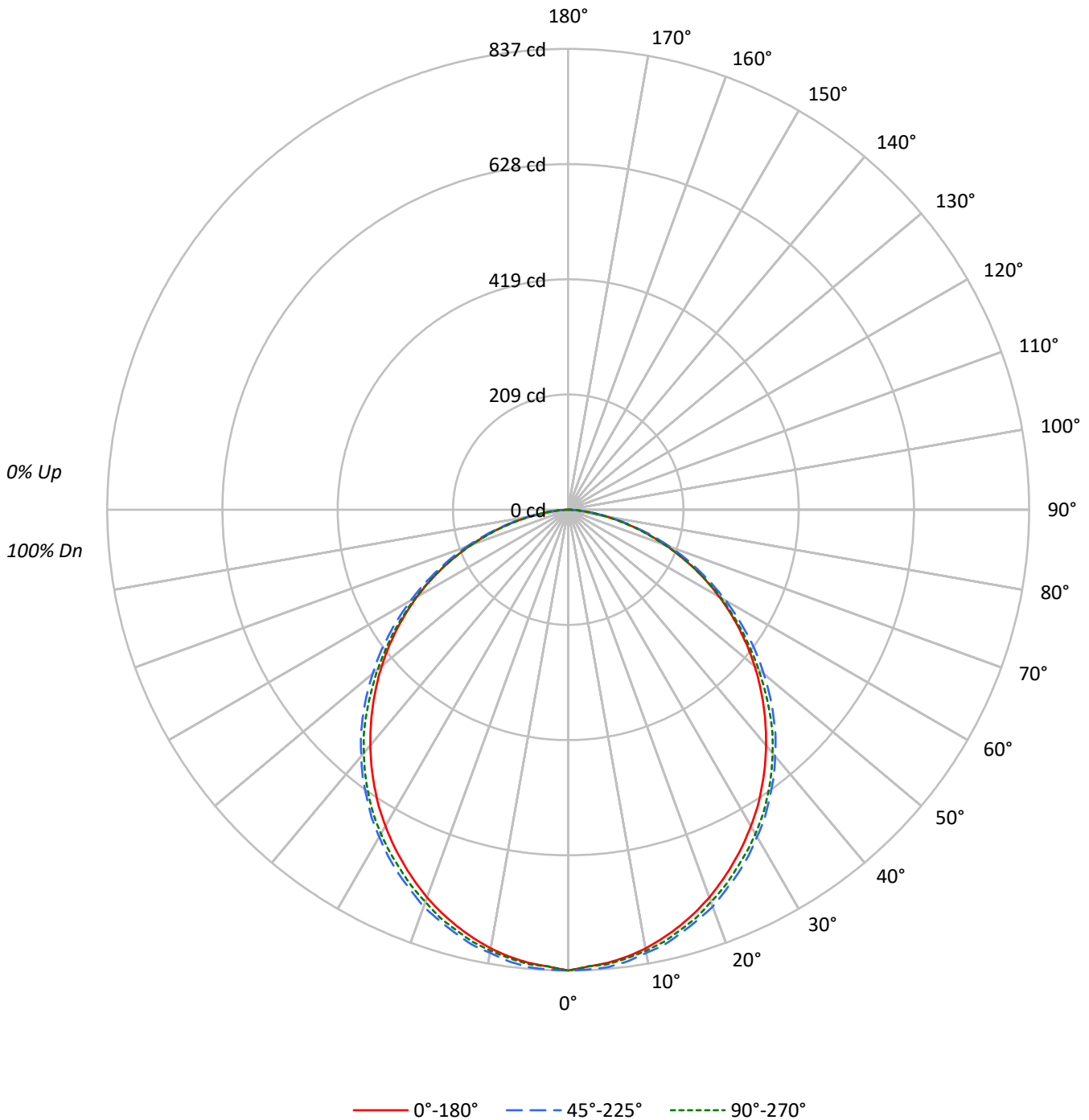
Lumens per Lamp: N/A
Luminaire Lumens: 2200.5 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	2252	2252	2252
5°	2232	2253	2239
10°	2211	2234	2223
15°	2181	2216	2200
20°	2146	2197	2171
25°	2104	2165	2140
30°	2062	2132	2112
35°	2015	2095	2076
40°	1963	2053	2027
45°	1908	2004	1966
50°	1850	1940	1889
55°	1783	1867	1810
60°	1708	1778	1723
65°	1609	1671	1610
70°	1481	1541	1464
75°	1304	1363	1284
80°	1060	1105	1048
85°	738	787	769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	3.6
10°-20°	223.4	10.2
20°-30°	333.2	15.1
30°-40°	394.8	17.9
40°-50°	399.5	18.2
50°-60°	348.9	15.9
60°-70°	255.0	11.6
70°-80°	135.7	6.2
80°-90°	31.4	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°	635.4	28.9
0°-40°	1030.2	46.8
0°-60°	1778.5	80.8
0°-90°	2200.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2200.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	837	837	837	837	837	
5°	826	828	834	836	829	78
15°	783	788	795	800	790	221
25°	709	717	729	732	721	327
35°	614	623	638	642	632	384
45°	501	510	527	527	517	387
55°	380	388	398	392	386	340
65°	253	258	262	257	253	250
75°	125	128	131	126	124	133
85°	24	24	26	26	25	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	837.0	837.0	837.0	837.0	837.0
2.5°	830.5	833.2	835.9	837.2	830.4
5°	826.1	827.7	833.9	835.8	828.7
7.5°	818.9	821.3	827.3	828.2	821.4
10°	809.2	813.4	817.4	821.7	813.4
12.5°	796.7	802.4	809.2	810.0	803.7
15°	782.7	787.9	795.3	800.1	789.7
17.5°	767.0	772.0	781.6	782.5	776.2
20°	749.4	755.7	767.2	769.2	758.0
22.5°	729.6	738.0	747.6	749.5	741.2
25°	708.7	717.4	729.3	732.0	720.9
27.5°	686.9	695.3	708.6	710.5	701.2
30°	663.5	671.4	686.0	689.3	679.8
32.5°	639.8	647.7	663.9	666.6	657.3
35°	613.5	623.1	637.8	642.3	631.9
37.5°	586.6	596.0	612.7	616.7	605.6
40°	558.8	568.1	584.5	587.8	577.1
42.5°	530.4	539.6	557.2	557.8	548.9
45°	501.3	510.2	526.6	527.1	516.7
47.5°	471.9	480.8	495.5	493.8	484.1
50°	442.0	450.6	463.4	460.1	451.3
52.5°	411.2	419.5	431.6	426.2	417.9
55°	380.1	387.8	397.9	392.2	385.7
57.5°	348.8	356.6	364.3	358.5	352.9
60°	317.3	324.1	330.4	324.5	320.2
62.5°	285.2	291.0	296.5	290.8	286.8
65°	252.7	257.9	262.4	257.2	252.9
67.5°	220.5	224.8	229.0	223.6	219.1
70°	188.2	191.9	195.8	190.2	186.1
72.5°	156.4	159.7	163.1	157.7	154.1
75°	125.4	128.3	131.1	126.3	123.5
77.5°	95.8	98.3	100.2	97.1	94.4
80°	68.4	70.2	71.3	70.1	67.6
82.5°	44.0	45.3	45.9	45.8	44.1
85°	23.9	24.3	25.5	25.7	24.9
87.5°	9.2	9.9	10.1	10.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)