

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: P489066

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-40-120-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: P489066
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-LD4-1STD-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

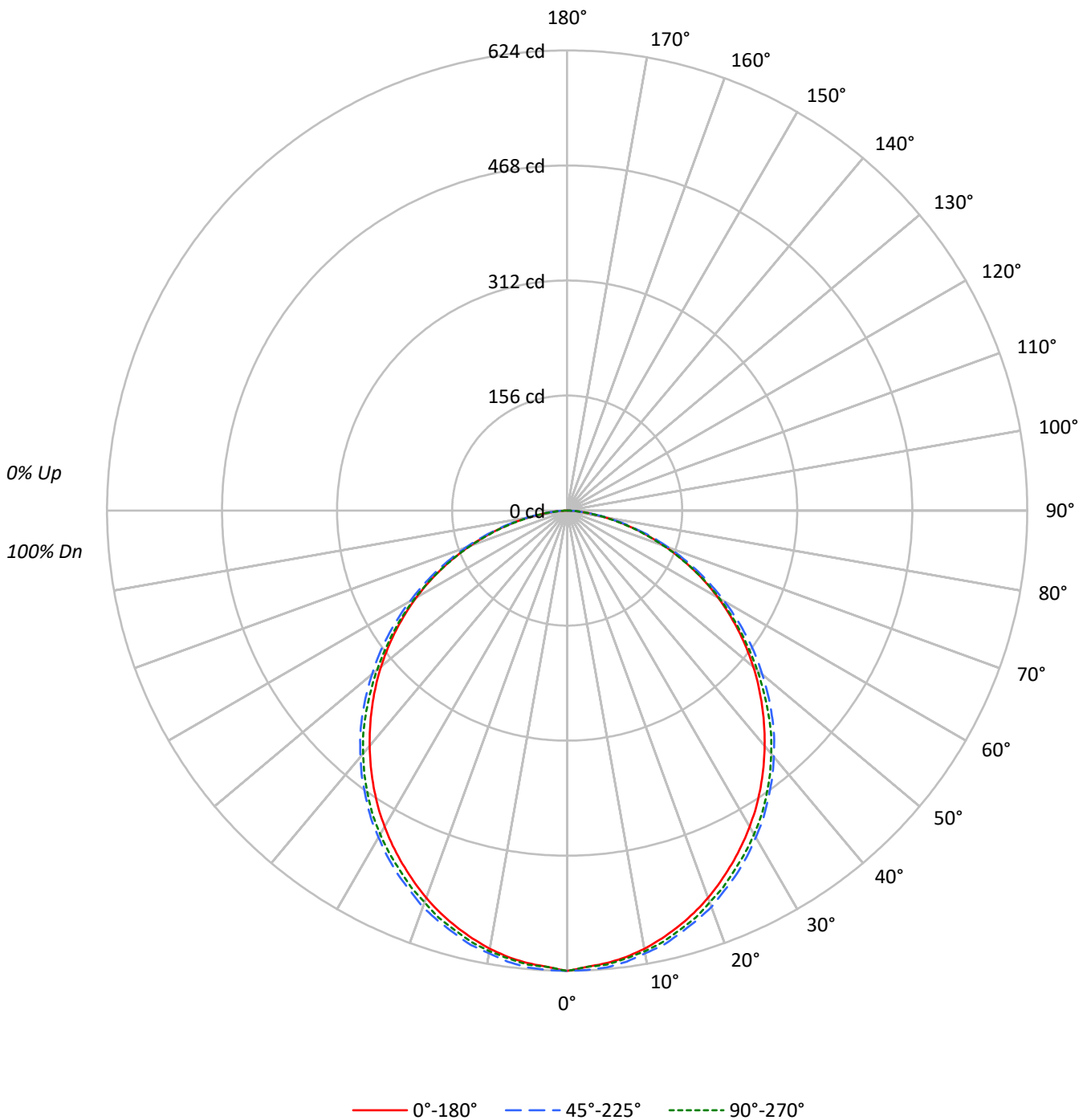
Lumens per Lamp: N/A
Luminaire Lumens: 1641.0 lumens
Efficiency: N/A
Efficacy: 98.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	1680	1680	1680
5°	1664	1680	1669
10°	1649	1665	1658
15°	1626	1652	1641
20°	1601	1639	1619
25°	1569	1615	1596
30°	1537	1590	1575
35°	1503	1562	1548
40°	1464	1531	1512
45°	1423	1494	1466
50°	1380	1447	1409
55°	1330	1392	1349
60°	1273	1326	1285
65°	1200	1246	1201
70°	1104	1149	1092
75°	972	1016	958
80°	790	824	781
85°	550	587	571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	3.6
10°-20°	166.6	10.2
20°-30°	248.5	15.1
30°-40°	294.4	17.9
40°-50°	297.9	18.2
50°-60°	260.2	15.9
60°-70°	190.1	11.6
70°-80°	101.2	6.2
80°-90°	23.4	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°	473.8	28.9
0°-40°	768.2	46.8
0°-60°	1326.3	80.8
0°-90°	1641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1641.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	624	624	624	624	624	
5°	616	617	622	623	618	58
15°	584	588	593	597	589	165
25°	528	535	544	546	538	243
35°	458	465	476	479	471	286
45°	374	380	393	393	385	288
55°	284	289	297	292	288	253
65°	188	192	196	192	189	187
75°	94	96	98	94	92	99
85°	18	18	19	19	18	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	624.2	624.2	624.2	624.2	624.2
2.5°	619.3	621.3	623.4	624.3	619.2
5°	616.0	617.2	621.8	623.3	618.0
7.5°	610.7	612.5	617.0	617.6	612.5
10°	603.4	606.6	609.5	612.8	606.6
12.5°	594.1	598.4	603.4	604.0	599.3
15°	583.7	587.6	593.1	596.7	588.9
17.5°	572.0	575.7	582.9	583.5	578.9
20°	558.9	563.6	572.2	573.6	565.3
22.5°	544.1	550.4	557.5	559.0	552.8
25°	528.5	535.0	543.9	545.9	537.6
27.5°	512.3	518.5	528.5	529.9	522.9
30°	494.8	500.7	511.6	514.0	506.9
32.5°	477.1	483.0	495.1	497.1	490.2
35°	457.5	464.7	475.6	479.0	471.2
37.5°	437.5	444.4	456.9	459.9	451.6
40°	416.7	423.6	435.9	438.4	430.4
42.5°	395.5	402.4	415.6	415.9	409.3
45°	373.9	380.5	392.7	393.1	385.3
47.5°	351.9	358.6	369.5	368.3	361.0
50°	329.6	336.0	345.6	343.1	336.5
52.5°	306.6	312.8	321.8	317.8	311.6
55°	283.5	289.2	296.7	292.4	287.6
57.5°	260.1	265.9	271.7	267.3	263.2
60°	236.6	241.7	246.4	242.0	238.8
62.5°	212.7	217.0	221.1	216.9	213.9
65°	188.5	192.3	195.7	191.8	188.6
67.5°	164.4	167.7	170.8	166.7	163.4
70°	140.3	143.1	146.0	141.8	138.8
72.5°	116.6	119.1	121.6	117.6	114.9
75°	93.5	95.7	97.7	94.2	92.1
77.5°	71.5	73.3	74.7	72.4	70.4
80°	51.0	52.4	53.2	52.3	50.4
82.5°	32.8	33.8	34.2	34.1	32.9
85°	17.8	18.1	19.0	19.2	18.5
87.5°	6.9	7.3	7.5	8.1	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)