

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: P489078

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-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: P489078
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-LD4-2HI-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

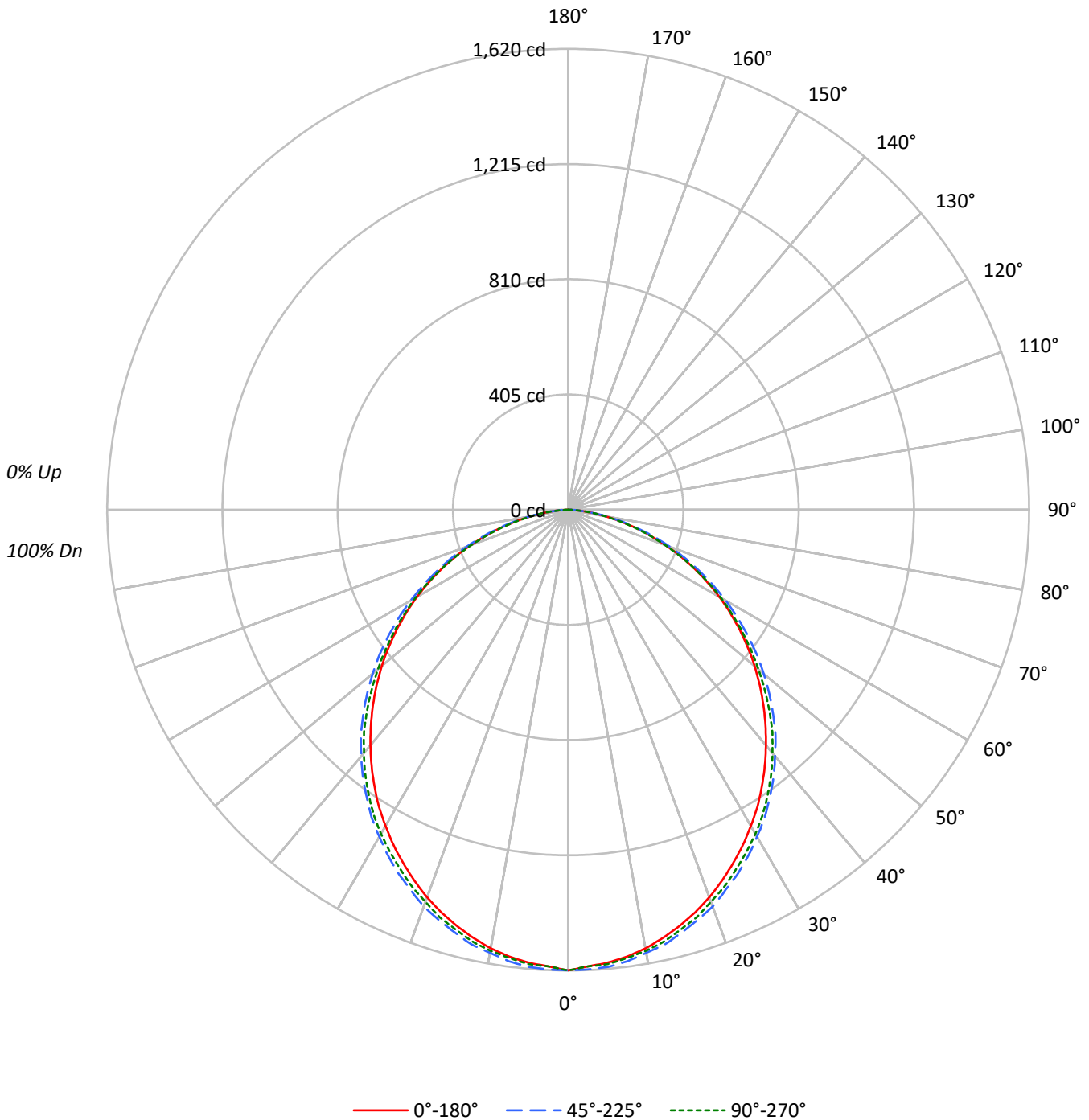
Lumens per Lamp: N/A
Luminaire Lumens: 4257.7 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	4358	4358	4358
5°	4318	4358	4331
10°	4278	4321	4301
15°	4219	4287	4257
20°	4153	4251	4200
25°	4072	4190	4142
30°	3989	4125	4087
35°	3899	4054	4016
40°	3798	3973	3923
45°	3691	3878	3804
50°	3581	3754	3656
55°	3451	3612	3501
60°	3303	3441	3335
65°	3114	3233	3116
70°	2865	2980	2833
75°	2522	2637	2484
80°	2050	2139	2027
85°	1426	1522	1485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	3.6
10°-20°	432.2	10.2
20°-30°	644.6	15.1
30°-40°	763.9	17.9
40°-50°	772.9	18.2
50°-60°	675.0	15.9
60°-70°	493.3	11.6
70°-80°	262.5	6.2
80°-90°	60.7	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°	1229.4	28.9
0°-40°	1993.3	46.8
0°-60°	3441.3	80.8
0°-90°	4257.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4257.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1620	1620	1620	1620	1620	
5°	1598	1601	1613	1617	1603	152
15°	1514	1524	1539	1548	1528	427
25°	1371	1388	1411	1416	1395	632
35°	1187	1206	1234	1243	1223	742
45°	970	987	1019	1020	1000	748
55°	736	750	770	759	746	657
65°	489	499	508	498	489	484
75°	243	248	254	244	239	258
85°	46	47	49	50	48	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1619.5	1619.5	1619.5	1619.5	1619.5
2.5°	1606.8	1612.1	1617.5	1619.8	1606.7
5°	1598.4	1601.4	1613.4	1617.1	1603.4
7.5°	1584.6	1589.1	1600.7	1602.4	1589.3
10°	1565.7	1573.8	1581.5	1589.9	1573.9
12.5°	1541.5	1552.5	1565.7	1567.2	1555.0
15°	1514.4	1524.5	1538.8	1548.1	1528.0
17.5°	1484.0	1493.8	1512.3	1514.0	1501.9
20°	1450.1	1462.2	1484.5	1488.4	1466.6
22.5°	1411.6	1428.0	1446.5	1450.2	1434.2
25°	1371.3	1388.1	1411.1	1416.3	1394.9
27.5°	1329.1	1345.3	1371.1	1374.8	1356.8
30°	1283.9	1299.1	1327.4	1333.6	1315.3
32.5°	1238.0	1253.2	1284.5	1289.8	1271.9
35°	1187.0	1205.6	1234.1	1242.7	1222.6
37.5°	1135.1	1153.1	1185.5	1193.3	1171.7
40°	1081.2	1099.1	1131.0	1137.4	1116.7
42.5°	1026.2	1044.1	1078.2	1079.2	1062.0
45°	970.0	987.2	1019.0	1019.8	999.7
47.5°	913.0	930.4	958.7	955.5	936.6
50°	855.3	871.8	896.6	890.2	873.2
52.5°	795.6	811.6	835.0	824.6	808.6
55°	735.5	750.3	769.9	758.8	746.3
57.5°	674.9	689.9	705.0	693.7	682.9
60°	613.8	627.0	639.3	627.8	619.6
62.5°	551.7	563.1	573.7	562.7	555.0
65°	489.0	498.9	507.7	497.6	489.3
67.5°	426.6	435.0	443.1	432.6	424.0
70°	364.1	371.4	378.8	368.0	360.1
72.5°	302.5	308.9	315.5	305.1	298.1
75°	242.6	248.2	253.6	244.3	238.9
77.5°	185.4	190.2	193.9	188.0	182.7
80°	132.3	135.8	138.0	135.7	130.8
82.5°	85.0	87.6	88.8	88.6	85.4
85°	46.2	47.1	49.3	49.8	48.1
87.5°	17.9	19.1	19.6	21.1	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)