

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: P489076

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-35-120-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: P489076
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-35-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

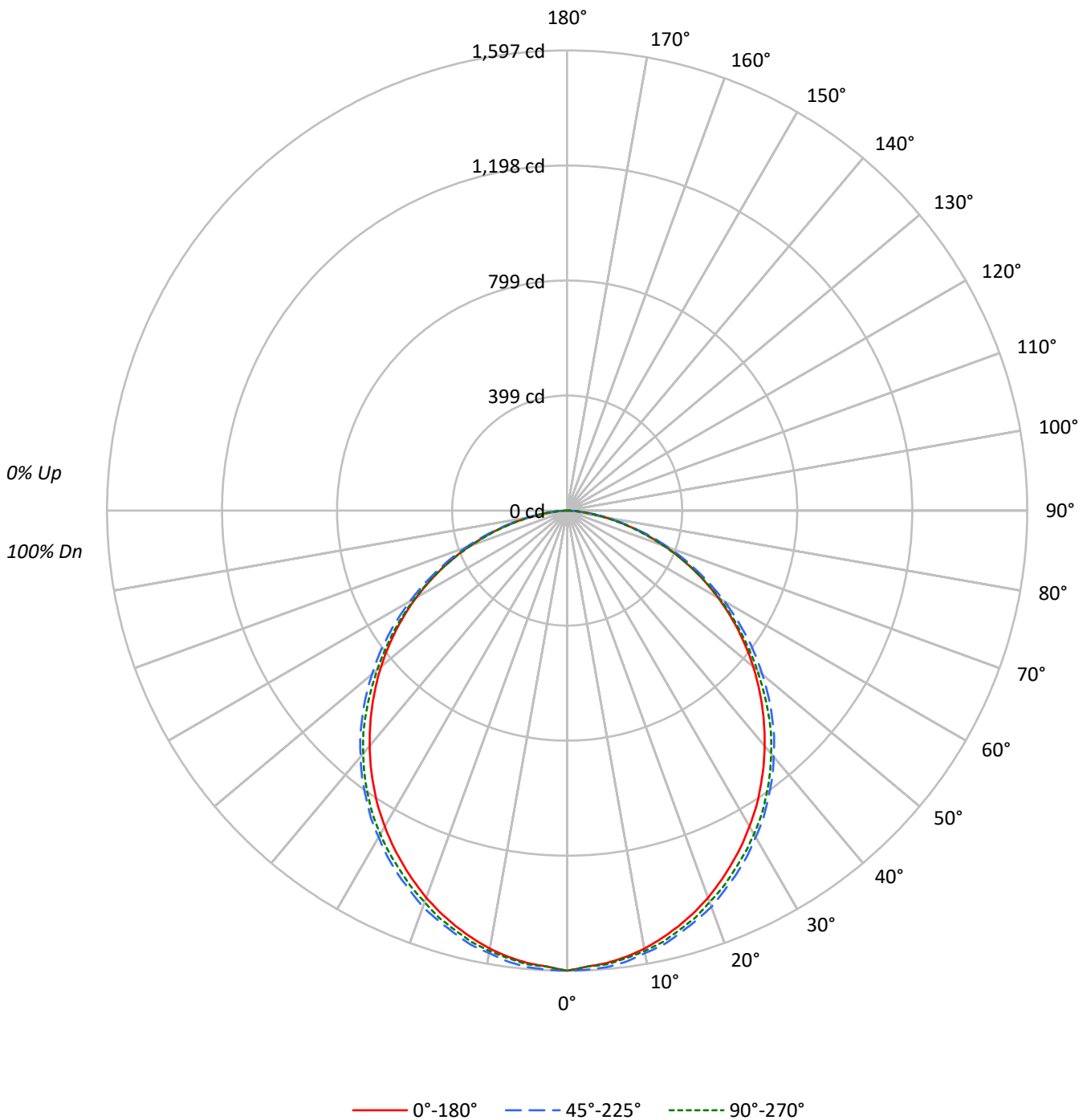
Lumens per Lamp: N/A
Luminaire Lumens: 4198.1 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4297	4297	4297
5°	4257	4297	4271
10°	4218	4261	4241
15°	4160	4227	4197
20°	4094	4192	4141
25°	4015	4131	4084
30°	3933	4067	4030
35°	3845	3997	3960
40°	3745	3918	3868
45°	3640	3824	3751
50°	3530	3701	3605
55°	3402	3561	3452
60°	3257	3393	3288
65°	3070	3188	3072
70°	2825	2939	2793
75°	2487	2600	2450
80°	2021	2109	1998
85°	1408	1501	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.4	3.6
10°-20°	426.2	10.2
20°-30°	635.6	15.1
30°-40°	753.2	17.9
40°-50°	762.1	18.2
50°-60°	665.6	15.9
60°-70°	486.4	11.6
70°-80°	258.8	6.2
80°-90°	59.8	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°	1212.2	28.9
0°-40°	1965.4	46.8
0°-60°	3393.1	80.8
0°-90°	4198.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4198.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1597	1597	1597	1597	1597	
5°	1576	1579	1591	1594	1581	149
15°	1493	1503	1517	1526	1507	421
25°	1352	1369	1391	1396	1375	623
35°	1170	1189	1217	1225	1206	732
45°	956	973	1005	1006	986	738
55°	725	740	759	748	736	648
65°	482	492	501	491	482	477
75°	239	245	250	241	236	254
85°	46	46	49	49	47	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1596.8	1596.8	1596.8	1596.8	1596.8
2.5°	1584.3	1589.5	1594.8	1597.1	1584.2
5°	1576.0	1579.0	1590.8	1594.5	1581.0
7.5°	1562.4	1566.9	1578.3	1580.0	1567.0
10°	1543.7	1551.7	1559.4	1567.7	1551.9
12.5°	1519.9	1530.8	1543.7	1545.2	1533.3
15°	1493.2	1503.1	1517.3	1526.4	1506.6
17.5°	1463.2	1472.9	1491.2	1492.8	1480.8
20°	1429.8	1441.8	1463.7	1467.5	1446.1
22.5°	1391.8	1408.0	1426.3	1429.9	1414.1
25°	1352.1	1368.7	1391.3	1396.5	1375.4
27.5°	1310.5	1326.5	1351.9	1355.6	1337.8
30°	1265.9	1280.9	1308.8	1315.0	1296.8
32.5°	1220.6	1235.6	1266.6	1271.7	1254.1
35°	1170.4	1188.7	1216.8	1225.3	1205.5
37.5°	1119.2	1137.0	1168.9	1176.6	1155.3
40°	1066.1	1083.7	1115.2	1121.5	1101.0
42.5°	1011.9	1029.5	1063.1	1064.1	1047.1
45°	956.5	973.4	1004.7	1005.5	985.7
47.5°	900.2	917.4	945.3	942.1	923.5
50°	843.3	859.6	884.1	877.8	861.0
52.5°	784.4	800.2	823.4	813.0	797.2
55°	725.2	739.8	759.1	748.2	735.8
57.5°	665.5	680.3	695.1	683.9	673.3
60°	605.2	618.2	630.4	619.1	610.9
62.5°	544.0	555.2	565.7	554.8	547.2
65°	482.1	492.0	500.6	490.6	482.5
67.5°	420.6	428.9	436.9	426.6	418.1
70°	359.0	366.2	373.5	362.9	355.0
72.5°	298.3	304.6	311.1	300.8	294.0
75°	239.2	244.7	250.1	240.9	235.6
77.5°	182.8	187.5	191.2	185.3	180.2
80°	130.4	133.9	136.1	133.8	128.9
82.5°	83.8	86.3	87.5	87.3	84.2
85°	45.6	46.4	48.6	49.1	47.4
87.5°	17.6	18.8	19.3	20.8	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)