

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: P488431

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2HI-40-120-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: P488431
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-12-2-INS-A19156-LD4-2HI-40-120-EDD
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

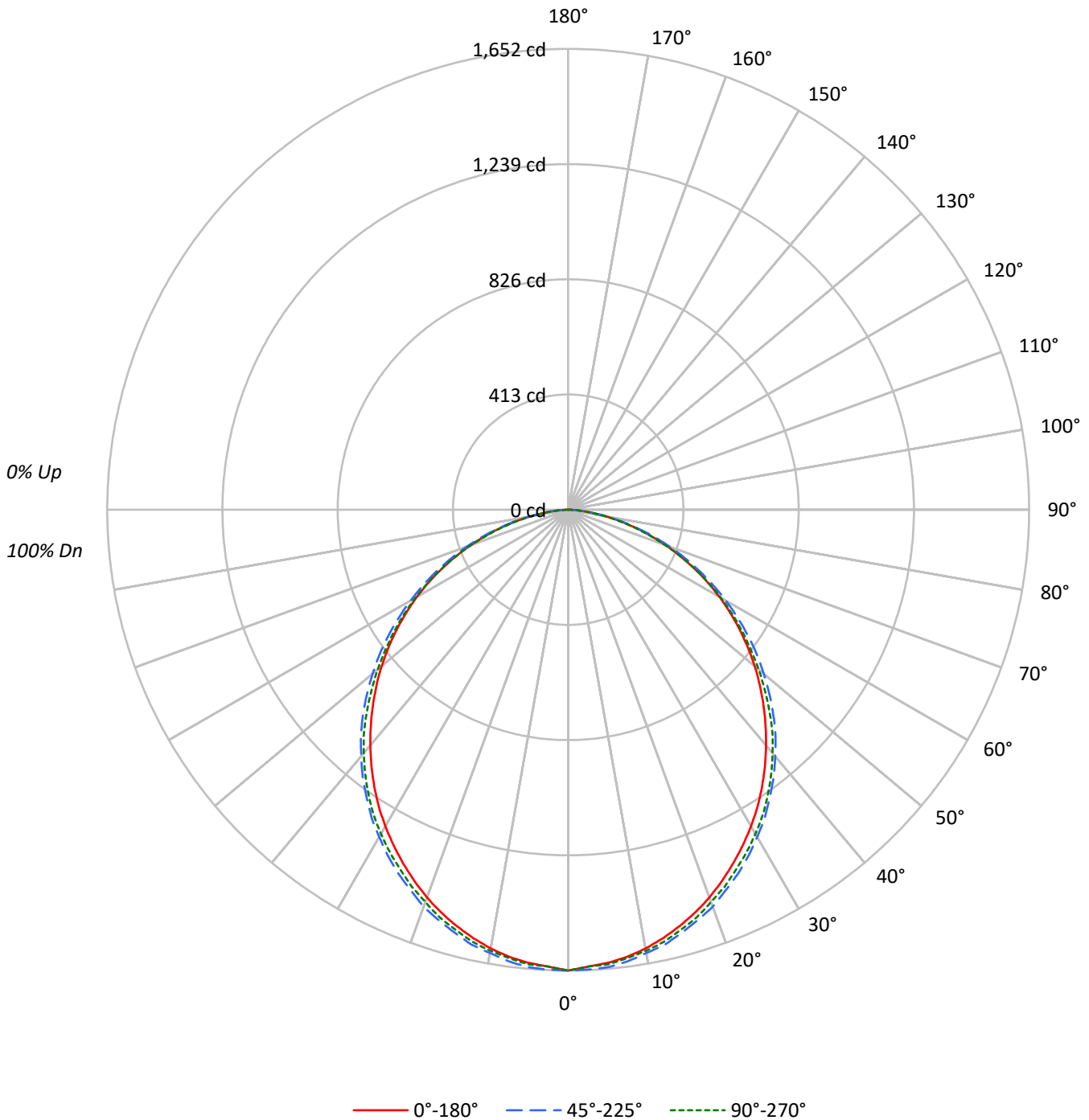
Lumens per Lamp: N/A
Luminaire Lumens: 4343.9 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	8893	8893	8893
5°	8810	8893	8838
10°	8730	8818	8776
15°	8608	8748	8686
20°	8473	8674	8570
25°	8308	8549	8451
30°	8140	8416	8339
35°	7957	8272	8196
40°	7750	8107	8004
45°	7533	7913	7763
50°	7306	7659	7459
55°	7041	7370	7144
60°	6741	7021	6804
65°	6353	6597	6357
70°	5846	6082	5781
75°	5147	5379	5070
80°	4184	4364	4135
85°	2915	3106	3032



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.6	3.6
10°-20°	441.0	10.2
20°-30°	657.7	15.1
30°-40°	779.4	17.9
40°-50°	788.6	18.2
50°-60°	688.7	15.9
60°-70°	503.3	11.6
70°-80°	267.8	6.2
80°-90°	61.9	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°	1254.3	28.9
0°-40°	2033.6	46.8
0°-60°	3510.9	80.8
0°-90°	4343.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4343.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1652	1652	1652	1652	1652	
5°	1631	1634	1646	1650	1636	155
15°	1545	1555	1570	1579	1559	436
25°	1399	1416	1440	1445	1423	645
35°	1211	1230	1259	1268	1247	757
45°	990	1007	1040	1040	1020	763
55°	750	766	786	774	761	671
65°	499	509	518	508	499	494
75°	248	253	259	249	244	263
85°	47	48	50	51	49	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1652.3	1652.3	1652.3	1652.3	1652.3
2.5°	1639.4	1644.7	1650.2	1652.6	1639.2
5°	1630.7	1633.8	1646.1	1649.9	1635.9
7.5°	1616.6	1621.3	1633.2	1634.9	1621.5
10°	1597.4	1605.6	1613.5	1622.1	1605.8
12.5°	1572.7	1583.9	1597.4	1598.9	1586.5
15°	1545.0	1555.3	1570.0	1579.4	1559.0
17.5°	1514.0	1524.0	1543.0	1544.7	1532.3
20°	1479.4	1491.8	1514.5	1518.5	1496.3
22.5°	1440.2	1456.9	1475.8	1479.6	1463.2
25°	1399.0	1416.3	1439.7	1445.0	1423.1
27.5°	1356.0	1372.5	1398.9	1402.7	1384.2
30°	1309.9	1325.4	1354.3	1360.6	1341.9
32.5°	1263.0	1278.5	1310.6	1315.9	1297.6
35°	1211.1	1230.0	1259.1	1267.9	1247.4
37.5°	1158.0	1176.5	1209.5	1217.4	1195.4
40°	1103.1	1121.4	1153.9	1160.4	1139.3
42.5°	1047.0	1065.2	1100.0	1101.1	1083.5
45°	989.7	1007.2	1039.6	1040.5	1020.0
47.5°	931.5	949.2	978.1	974.9	955.6
50°	872.6	889.5	914.8	908.2	890.9
52.5°	811.7	828.0	852.0	841.3	824.9
55°	750.4	765.5	785.5	774.1	761.4
57.5°	688.6	703.9	719.2	707.7	696.7
60°	626.3	639.7	652.3	640.6	632.1
62.5°	562.9	574.5	585.3	574.1	566.2
65°	498.9	509.0	518.0	507.7	499.2
67.5°	435.2	443.8	452.1	441.4	432.6
70°	371.5	378.9	386.5	375.5	367.4
72.5°	308.7	315.2	321.9	311.2	304.2
75°	247.5	253.2	258.7	249.3	243.8
77.5°	189.2	194.0	197.8	191.8	186.4
80°	135.0	138.6	140.8	138.4	133.4
82.5°	86.8	89.3	90.5	90.4	87.1
85°	47.2	48.0	50.3	50.8	49.1
87.5°	18.2	19.5	20.0	21.5	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)