

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: P486925

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-27-120-EDD**

Issue Date: 3/1/2021

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: P486925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-89BC-LD4-1HI-27-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

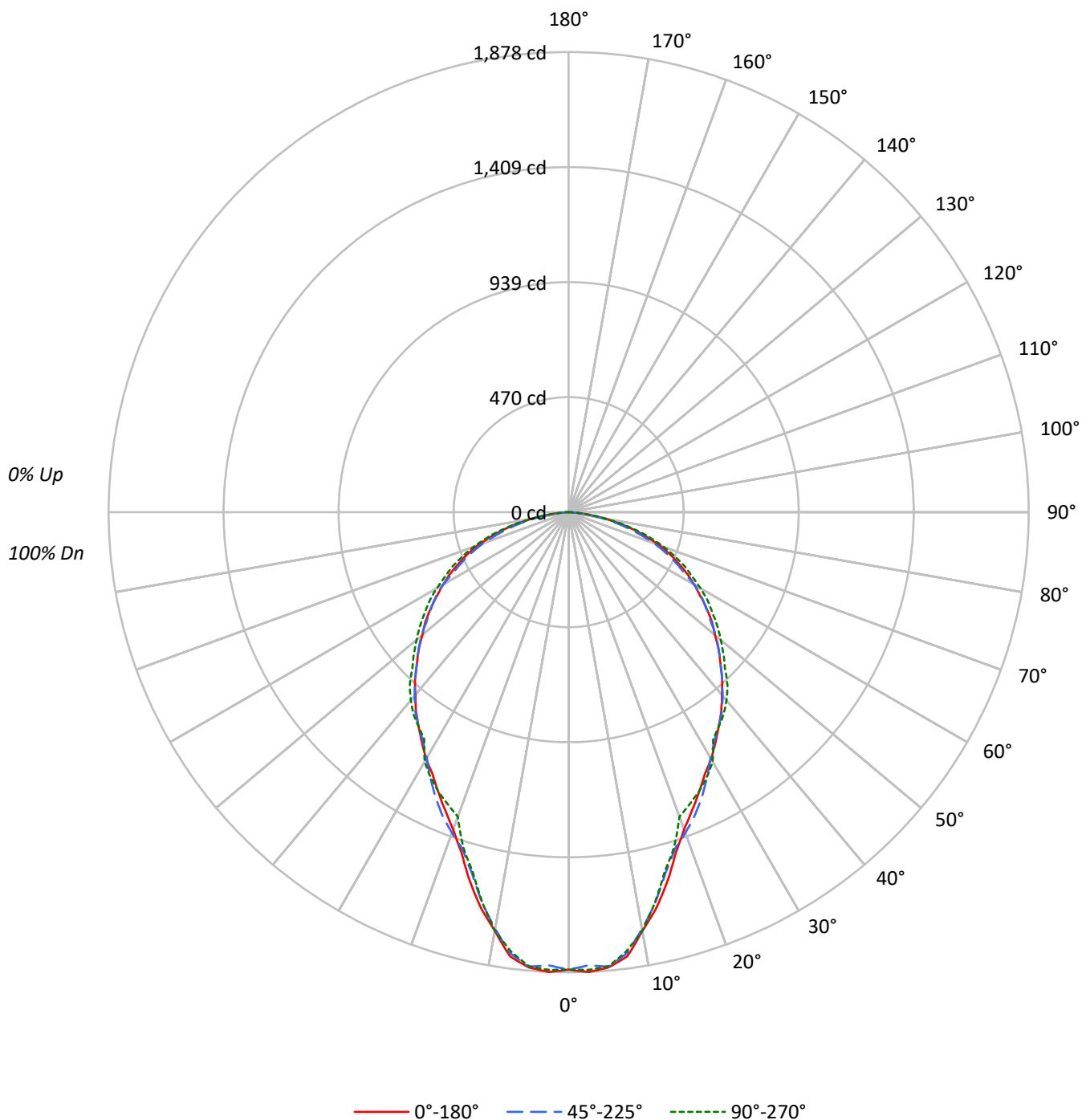
Lumens per Lamp: N/A
Luminaire Lumens: 3992.5 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56	81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48	75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38	64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31	56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28	53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2512	2512	2512
5°	2519	2515	2512
10°	2370	2360	2369
15°	2172	2124	2112
20°	1973	1995	1893
25°	1871	1908	1868
30°	1807	1799	1826
35°	1754	1754	1754
40°	1710	1717	1760
45°	1668	1666	1718
50°	1632	1644	1695
55°	1615	1608	1681
60°	1594	1591	1672
65°	1573	1524	1663
70°	1543	1455	1619
75°	1428	1292	1499
80°	1158	1053	1189
85°	735	659	644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.4	4.3
10°-20°	433.5	10.9
20°-30°	585.4	14.7
30°-40°	670.4	16.8
40°-50°	686.7	17.2
50°-60°	623.1	15.6
60°-70°	486.3	12.2
70°-80°	275.8	6.9
80°-90°	57.9	1.5
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°	1192.3	29.9
0°-40°	1862.7	46.7
0°-60°	3172.5	79.5
0°-90°	3992.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3992.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1867	1867	1867	1867	1867	
5°	1865	1844	1862	1866	1860	174
15°	1559	1564	1525	1533	1516	436
25°	1260	1277	1285	1254	1258	581
35°	1068	1070	1068	1069	1068	669
45°	877	883	876	912	903	678
55°	688	687	685	710	716	615
65°	494	484	479	501	522	490
75°	275	254	248	263	288	287
85°	48	43	43	40	42	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1866.9	1866.9	1866.9	1866.9	1866.9
2.5°	1878.5	1863.9	1851.3	1871.7	1869.8
5°	1864.9	1843.6	1862.0	1865.9	1860.1
7.5°	1829.0	1815.4	1816.4	1808.6	1807.6
10°	1734.8	1742.6	1727.1	1740.7	1733.9
12.5°	1654.3	1659.1	1631.9	1637.7	1630.0
15°	1559.1	1564.0	1525.1	1532.9	1516.4
17.5°	1455.2	1472.7	1440.7	1450.4	1432.9
20°	1377.6	1392.1	1393.1	1377.6	1322.2
22.5°	1316.4	1331.0	1342.6	1296.0	1290.2
25°	1260.1	1276.6	1285.3	1254.3	1258.2
27.5°	1203.8	1222.2	1222.2	1229.0	1220.3
30°	1163.0	1170.8	1158.2	1183.4	1175.6
32.5°	1114.5	1117.4	1106.7	1125.2	1098.0
35°	1067.9	1069.8	1067.9	1068.9	1067.9
37.5°	1023.2	1018.4	1027.1	1021.3	1039.7
40°	973.7	973.7	977.6	987.3	1001.9
42.5°	928.1	932.0	927.1	954.3	960.1
45°	876.6	883.4	875.7	911.6	902.8
47.5°	830.0	833.0	831.0	855.3	857.2
50°	779.6	783.4	785.4	806.7	809.7
52.5°	737.8	736.8	730.0	761.1	766.0
55°	688.3	687.3	685.4	709.7	716.5
57.5°	637.8	638.8	643.6	657.2	673.7
60°	592.2	587.3	591.2	607.7	621.3
62.5°	545.6	536.9	528.1	555.3	567.9
65°	494.1	483.5	478.6	500.9	522.3
67.5°	446.6	429.1	426.2	441.7	467.0
70°	392.2	370.8	369.9	381.5	411.6
72.5°	332.0	313.6	308.7	324.2	351.4
75°	274.7	254.4	248.5	263.1	288.3
77.5°	212.6	196.1	192.2	200.0	220.4
80°	149.5	139.8	135.9	138.8	153.4
82.5°	94.2	87.4	85.4	84.5	92.2
85°	47.6	42.7	42.7	39.8	41.7
87.5°	14.6	13.6	12.6	9.7	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)