

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: P486929

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-35-120-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: P486929
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-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

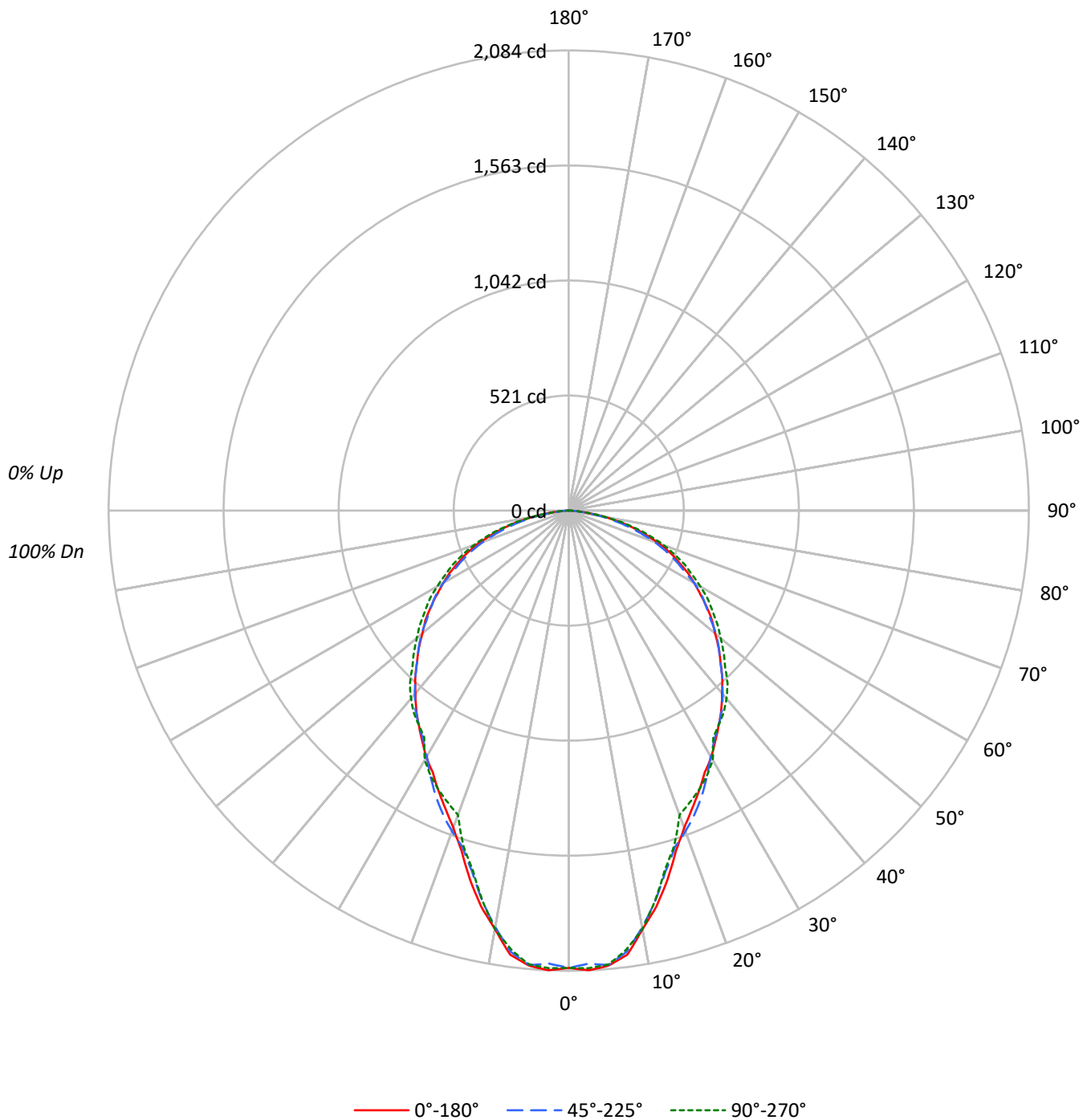
Lumens per Lamp: N/A
Luminaire Lumens: 4428.7 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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				10			
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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2786	2786	2786
5°	2794	2790	2787
10°	2629	2617	2628
15°	2409	2357	2343
20°	2188	2213	2100
25°	2075	2117	2072
30°	2004	1996	2026
35°	1946	1946	1946
40°	1897	1905	1952
45°	1850	1848	1906
50°	1810	1824	1880
55°	1791	1784	1864
60°	1768	1765	1855
65°	1745	1690	1845
70°	1712	1614	1796
75°	1585	1433	1663
80°	1285	1168	1318
85°	815	732	715



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.3	4.3
10°-20°	480.9	10.9
20°-30°	649.4	14.7
30°-40°	743.6	16.8
40°-50°	761.7	17.2
50°-60°	691.2	15.6
60°-70°	539.4	12.2
70°-80°	305.9	6.9
80°-90°	64.2	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°	1322.6	29.9
0°-40°	2066.2	46.7
0°-60°	3519.1	79.5
0°-90°	4428.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4428.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2071	2071	2071	2071	2071	
5°	2069	2045	2065	2070	2063	193
15°	1730	1735	1692	1700	1682	483
25°	1398	1416	1426	1391	1396	645
35°	1185	1187	1185	1186	1185	742
45°	972	980	971	1011	1002	752
55°	764	762	760	787	795	682
65°	548	536	531	556	579	543
75°	305	282	276	292	320	319
85°	53	47	47	44	46	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2070.8	2070.8	2070.8	2070.8	2070.8
2.5°	2083.7	2067.6	2053.6	2076.2	2074.1
5°	2068.7	2045.0	2065.4	2069.7	2063.3
7.5°	2028.8	2013.7	2014.8	2006.2	2005.1
10°	1924.4	1933.0	1915.8	1930.8	1923.3
12.5°	1835.0	1840.4	1810.2	1816.7	1808.1
15°	1729.5	1734.8	1691.8	1700.4	1682.1
17.5°	1614.2	1633.6	1598.1	1608.8	1589.5
20°	1528.1	1544.2	1545.3	1528.1	1466.7
22.5°	1460.2	1476.4	1489.3	1437.6	1431.2
25°	1397.8	1416.1	1425.8	1391.3	1395.6
27.5°	1335.3	1355.8	1355.8	1363.3	1353.6
30°	1290.1	1298.7	1284.7	1312.7	1304.1
32.5°	1236.2	1239.5	1227.6	1248.1	1217.9
35°	1184.6	1186.7	1184.6	1185.6	1184.6
37.5°	1135.0	1129.6	1139.3	1132.9	1153.3
40°	1080.1	1080.1	1084.4	1095.2	1111.3
42.5°	1029.5	1033.8	1028.4	1058.6	1065.0
45°	972.4	980.0	971.3	1011.2	1001.5
47.5°	920.7	924.0	921.8	948.7	950.9
50°	864.7	869.0	871.2	894.9	898.1
52.5°	818.4	817.3	809.8	844.3	849.7
55°	763.5	762.4	760.3	787.2	794.7
57.5°	707.5	708.6	714.0	729.0	747.3
60°	656.9	651.5	655.8	674.1	689.2
62.5°	605.2	595.5	585.8	616.0	630.0
65°	548.1	536.3	530.9	555.7	579.4
67.5°	495.4	476.0	472.7	490.0	518.0
70°	435.1	411.4	410.3	423.2	456.6
72.5°	368.3	347.8	342.4	359.7	389.8
75°	304.8	282.1	275.7	291.8	319.8
77.5°	235.8	217.5	213.2	221.8	244.4
80°	165.8	155.1	150.8	154.0	170.1
82.5°	104.5	96.9	94.8	93.7	102.3
85°	52.8	47.4	47.4	44.2	46.3
87.5°	16.2	15.1	14.0	10.8	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)