

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: P486930

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-40-120-EDD-90**

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: P486930
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-40-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

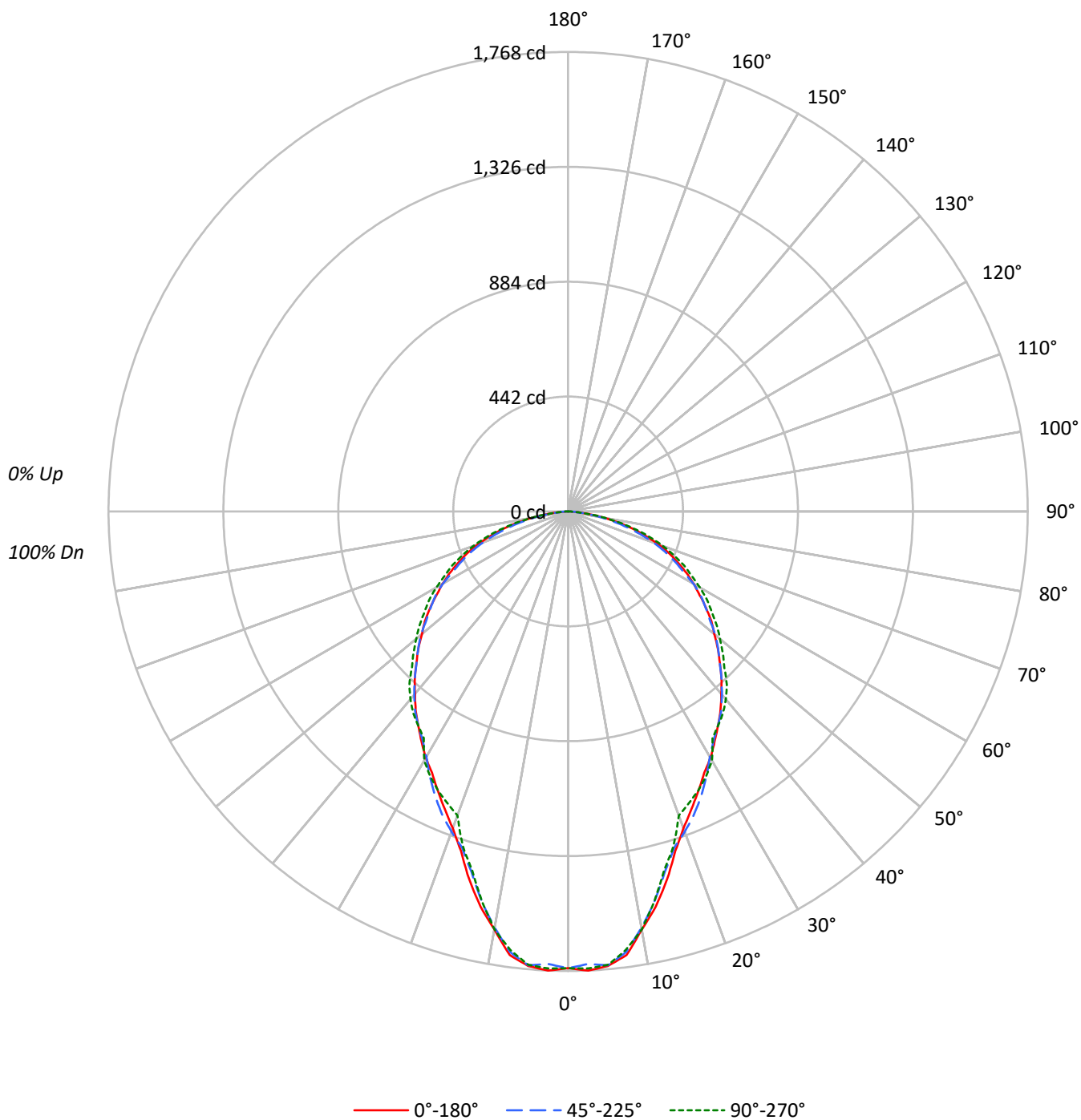
Lumens per Lamp: N/A
Luminaire Lumens: 3758.3 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2365	2365	2365
5°	2371	2367	2365
10°	2231	2221	2230
15°	2044	2000	1988
20°	1857	1878	1782
25°	1761	1796	1758
30°	1701	1694	1719
35°	1651	1651	1651
40°	1610	1616	1656
45°	1570	1568	1617
50°	1536	1548	1595
55°	1520	1514	1582
60°	1500	1498	1574
65°	1481	1434	1565
70°	1452	1370	1524
75°	1344	1216	1411
80°	1090	991	1119
85°	692	621	607



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.2	4.3
10°-20°	408.1	10.9
20°-30°	551.1	14.7
30°-40°	631.1	16.8
40°-50°	646.4	17.2
50°-60°	586.5	15.6
60°-70°	457.8	12.2
70°-80°	259.6	6.9
80°-90°	54.5	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°	1122.4	29.9
0°-40°	1753.4	46.7
0°-60°	2986.4	79.5
0°-90°	3758.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3758.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1757	1757	1757	1757	1757	
5°	1756	1735	1753	1756	1751	164
15°	1468	1472	1436	1443	1427	410
25°	1186	1202	1210	1181	1184	547
35°	1005	1007	1005	1006	1005	630
45°	825	832	824	858	850	638
55°	648	647	645	668	674	579
65°	465	455	450	472	492	461
75°	259	239	234	248	271	271
85°	45	40	40	38	39	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1757.4	1757.4	1757.4	1757.4	1757.4
2.5°	1768.3	1754.6	1742.7	1761.9	1760.1
5°	1755.5	1735.4	1752.8	1756.4	1751.0
7.5°	1721.7	1708.9	1709.8	1702.5	1701.6
10°	1633.1	1640.4	1625.8	1638.5	1632.2
12.5°	1557.2	1561.8	1536.2	1541.7	1534.4
15°	1467.7	1472.2	1435.7	1443.0	1427.4
17.5°	1369.9	1386.3	1356.2	1365.3	1348.9
20°	1296.8	1310.5	1311.4	1296.8	1244.7
22.5°	1239.2	1252.9	1263.9	1220.0	1214.5
25°	1186.2	1201.7	1209.9	1180.7	1184.4
27.5°	1133.2	1150.5	1150.5	1156.9	1148.7
30°	1094.8	1102.1	1090.2	1114.0	1106.7
32.5°	1049.1	1051.9	1041.8	1059.2	1033.6
35°	1005.2	1007.1	1005.2	1006.2	1005.2
37.5°	963.2	958.6	966.9	961.4	978.7
40°	916.6	916.6	920.3	929.4	943.1
42.5°	873.6	877.3	872.7	898.3	903.8
45°	825.2	831.6	824.3	858.1	849.9
47.5°	781.3	784.1	782.3	805.1	806.9
50°	733.8	737.5	739.3	759.4	762.2
52.5°	694.5	693.6	687.2	716.5	721.0
55°	647.9	647.0	645.2	668.0	674.4
57.5°	600.4	601.3	605.9	618.7	634.2
60°	557.5	552.9	556.5	572.1	584.9
62.5°	513.6	505.4	497.1	522.7	534.6
65°	465.2	455.1	450.5	471.6	491.7
67.5°	420.4	403.9	401.2	415.8	439.6
70°	369.2	349.1	348.2	359.1	387.5
72.5°	312.5	295.2	290.6	305.2	330.8
75°	258.6	239.4	233.9	247.7	271.4
77.5°	200.1	184.6	180.9	188.3	207.4
80°	140.7	131.6	127.9	130.7	144.4
82.5°	88.6	82.2	80.4	79.5	86.8
85°	44.8	40.2	40.2	37.5	39.3
87.5°	13.7	12.8	11.9	9.1	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)