

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: P486984

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-27-120-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: P486984
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-LD4-2STD-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

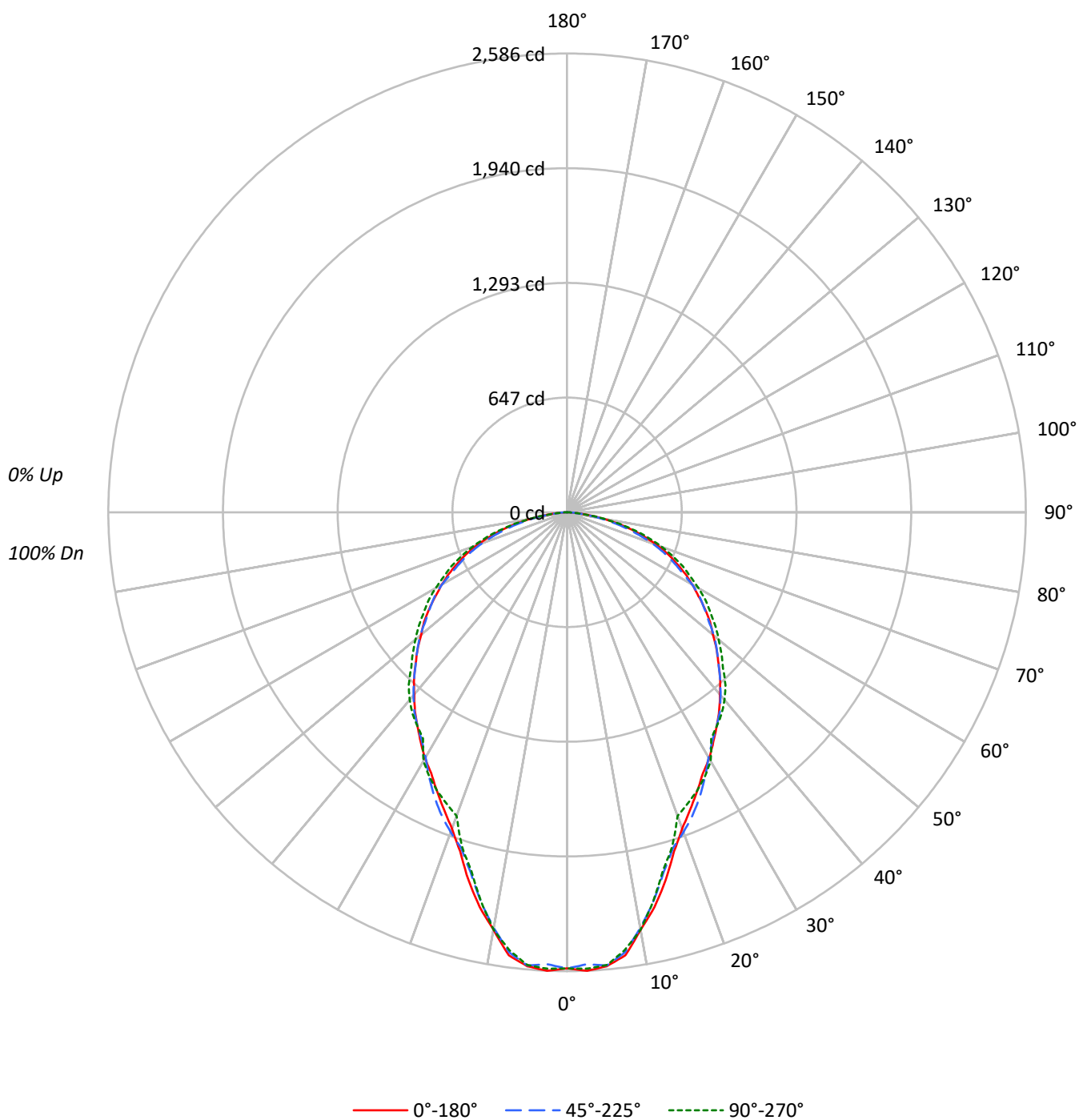
Lumens per Lamp: N/A
Luminaire Lumens: 5497.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	3458	3458	3458
5°	3468	3463	3459
10°	3263	3249	3262
15°	2990	2925	2908
20°	2716	2746	2607
25°	2576	2627	2572
30°	2488	2477	2515
35°	2415	2415	2415
40°	2355	2364	2423
45°	2297	2294	2365
50°	2247	2263	2334
55°	2223	2214	2314
60°	2194	2190	2302
65°	2166	2098	2289
70°	2124	2004	2229
75°	1967	1779	2064
80°	1595	1450	1636
85°	1011	908	888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.7	4.3
10°-20°	596.8	10.9
20°-30°	806.0	14.7
30°-40°	923.0	16.8
40°-50°	945.5	17.2
50°-60°	857.9	15.6
60°-70°	669.6	12.2
70°-80°	379.8	6.9
80°-90°	79.7	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°	1641.6	29.9
0°-40°	2564.6	46.7
0°-60°	4368.0	79.5
0°-90°	5497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2570	2570	2570	2570	2570	
5°	2568	2538	2564	2569	2561	240
15°	2147	2153	2100	2110	2088	600
25°	1735	1758	1770	1727	1732	801
35°	1470	1473	1470	1472	1470	921
45°	1207	1216	1206	1255	1243	933
55°	948	946	944	977	986	847
65°	680	666	659	690	719	674
75°	378	350	342	362	397	396
85°	66	59	59	55	58	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2570.4	2570.4	2570.4	2570.4	2570.4
2.5°	2586.4	2566.3	2549.0	2577.0	2574.4
5°	2567.7	2538.3	2563.7	2569.0	2561.0
7.5°	2518.2	2499.5	2500.8	2490.2	2488.8
10°	2388.6	2399.3	2377.9	2396.6	2387.2
12.5°	2277.6	2284.3	2246.9	2254.9	2244.2
15°	2146.6	2153.3	2099.9	2110.5	2087.8
17.5°	2003.6	2027.7	1983.6	1996.9	1972.9
20°	1896.7	1916.7	1918.1	1896.7	1820.5
22.5°	1812.5	1832.5	1848.6	1784.4	1776.4
25°	1735.0	1757.7	1769.7	1726.9	1732.3
27.5°	1657.4	1682.8	1682.8	1692.2	1680.2
30°	1601.3	1612.0	1594.6	1629.4	1618.7
32.5°	1534.5	1538.5	1523.8	1549.2	1511.7
35°	1470.3	1473.0	1470.3	1471.6	1470.3
37.5°	1408.8	1402.1	1414.2	1406.1	1431.5
40°	1340.6	1340.6	1346.0	1359.4	1379.4
42.5°	1277.8	1283.2	1276.5	1313.9	1321.9
45°	1207.0	1216.3	1205.6	1255.1	1243.1
47.5°	1142.8	1146.8	1144.2	1177.6	1180.3
50°	1073.3	1078.7	1081.3	1110.7	1114.8
52.5°	1015.8	1014.5	1005.2	1047.9	1054.6
55°	947.7	946.3	943.7	977.1	986.4
57.5°	878.2	879.5	886.2	904.9	927.6
60°	815.3	808.7	814.0	836.7	855.4
62.5°	751.2	739.2	727.1	764.6	781.9
65°	680.3	665.6	659.0	689.7	719.1
67.5°	614.9	590.8	586.8	608.2	642.9
70°	540.0	510.6	509.3	525.3	566.7
72.5°	457.1	431.7	425.1	446.4	483.9
75°	378.3	350.2	342.2	362.2	397.0
77.5°	292.7	270.0	264.7	275.3	303.4
80°	205.8	192.5	187.1	191.1	211.2
82.5°	129.7	120.3	117.6	116.3	127.0
85°	65.5	58.8	58.8	54.8	57.5
87.5°	20.0	18.7	17.4	13.4	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)