

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: P487007

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3LO-20-120-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: P487007
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-LD4-3LO-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

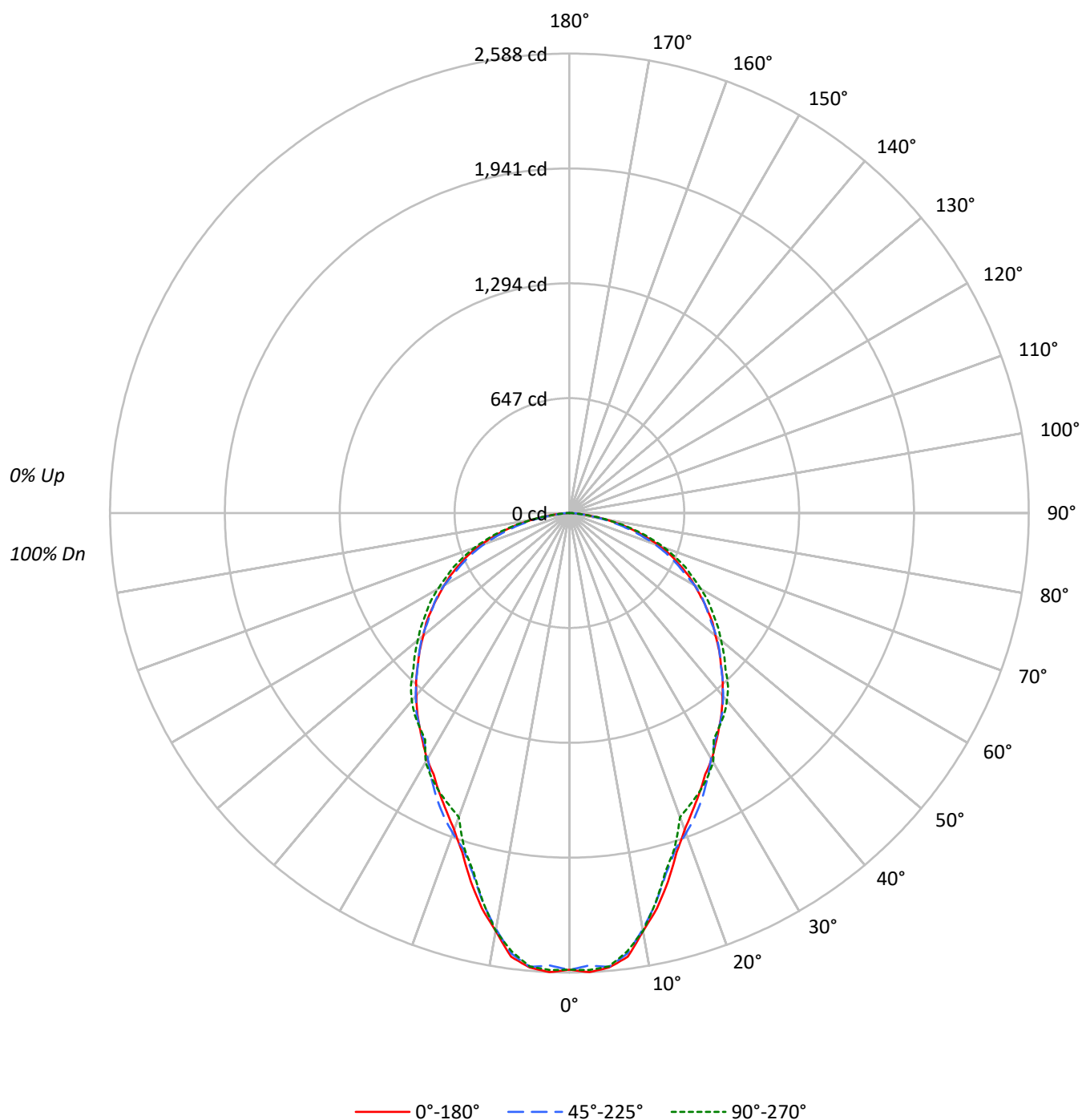
Lumens per Lamp: N/A
Luminaire Lumens: 5500.2 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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					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°	3460	3460	3460
5°	3470	3465	3461
10°	3265	3251	3263
15°	2992	2927	2910
20°	2717	2748	2608
25°	2577	2629	2573
30°	2489	2479	2516
35°	2417	2417	2417
40°	2356	2366	2424
45°	2298	2295	2367
50°	2248	2265	2335
55°	2224	2215	2315
60°	2195	2192	2303
65°	2167	2099	2291
70°	2126	2005	2231
75°	1968	1780	2065
80°	1596	1450	1637
85°	1011	908	888



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.9	4.3
10°-20°	597.2	10.9
20°-30°	806.5	14.7
30°-40°	923.6	16.8
40°-50°	946.0	17.2
50°-60°	858.4	15.6
60°-70°	669.9	12.2
70°-80°	380.0	6.9
80°-90°	79.8	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°	1642.6	29.9
0°-40°	2566.1	46.7
0°-60°	4370.5	79.5
0°-90°	5500.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5500.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2572	2572	2572	2572	2572	
5°	2569	2540	2565	2570	2562	240
15°	2148	2155	2101	2112	2089	600
25°	1736	1759	1771	1728	1733	801
35°	1471	1474	1471	1472	1471	922
45°	1208	1217	1206	1256	1244	934
55°	948	947	944	978	987	847
65°	681	666	659	690	720	675
75°	378	350	342	362	397	396
85°	66	59	59	55	58	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2571.8	2571.8	2571.8	2571.8	2571.8
2.5°	2587.9	2567.8	2550.4	2578.5	2575.9
5°	2569.2	2539.8	2565.2	2570.5	2562.5
7.5°	2519.7	2501.0	2502.3	2491.6	2490.3
10°	2390.0	2400.7	2379.3	2398.0	2388.6
12.5°	2279.0	2285.6	2248.2	2256.2	2245.5
15°	2147.9	2154.6	2101.1	2111.8	2089.0
17.5°	2004.8	2028.9	1984.7	1998.1	1974.0
20°	1897.8	1917.9	1919.2	1897.8	1821.6
22.5°	1813.5	1833.6	1849.6	1785.4	1777.4
25°	1736.0	1758.7	1770.7	1727.9	1733.3
27.5°	1658.4	1683.8	1683.8	1693.2	1681.1
30°	1602.2	1612.9	1595.5	1630.3	1619.6
32.5°	1535.4	1539.4	1524.7	1550.1	1512.6
35°	1471.2	1473.8	1471.2	1472.5	1471.2
37.5°	1409.6	1402.9	1415.0	1407.0	1432.4
40°	1341.4	1341.4	1346.8	1360.2	1380.2
42.5°	1278.6	1283.9	1277.2	1314.7	1322.7
45°	1207.7	1217.0	1206.3	1255.8	1243.8
47.5°	1143.5	1147.5	1144.8	1178.3	1180.9
50°	1073.9	1079.3	1082.0	1111.4	1115.4
52.5°	1016.4	1015.1	1005.7	1048.5	1055.2
55°	948.2	946.9	944.2	977.7	987.0
57.5°	878.7	880.0	886.7	905.4	928.2
60°	815.8	809.1	814.5	837.2	855.9
62.5°	751.6	739.6	727.6	765.0	782.4
65°	680.7	666.0	659.3	690.1	719.5
67.5°	615.2	591.1	587.1	608.5	643.3
70°	540.3	510.9	509.6	525.6	567.1
72.5°	457.4	432.0	425.3	446.7	484.1
75°	378.5	350.4	342.4	362.4	397.2
77.5°	292.9	270.2	264.8	275.5	303.6
80°	206.0	192.6	187.2	191.3	211.3
82.5°	129.7	120.4	117.7	116.4	127.1
85°	65.5	58.8	58.8	54.8	57.5
87.5°	20.1	18.7	17.4	13.4	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)