

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: P486983

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-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: P486983
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-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

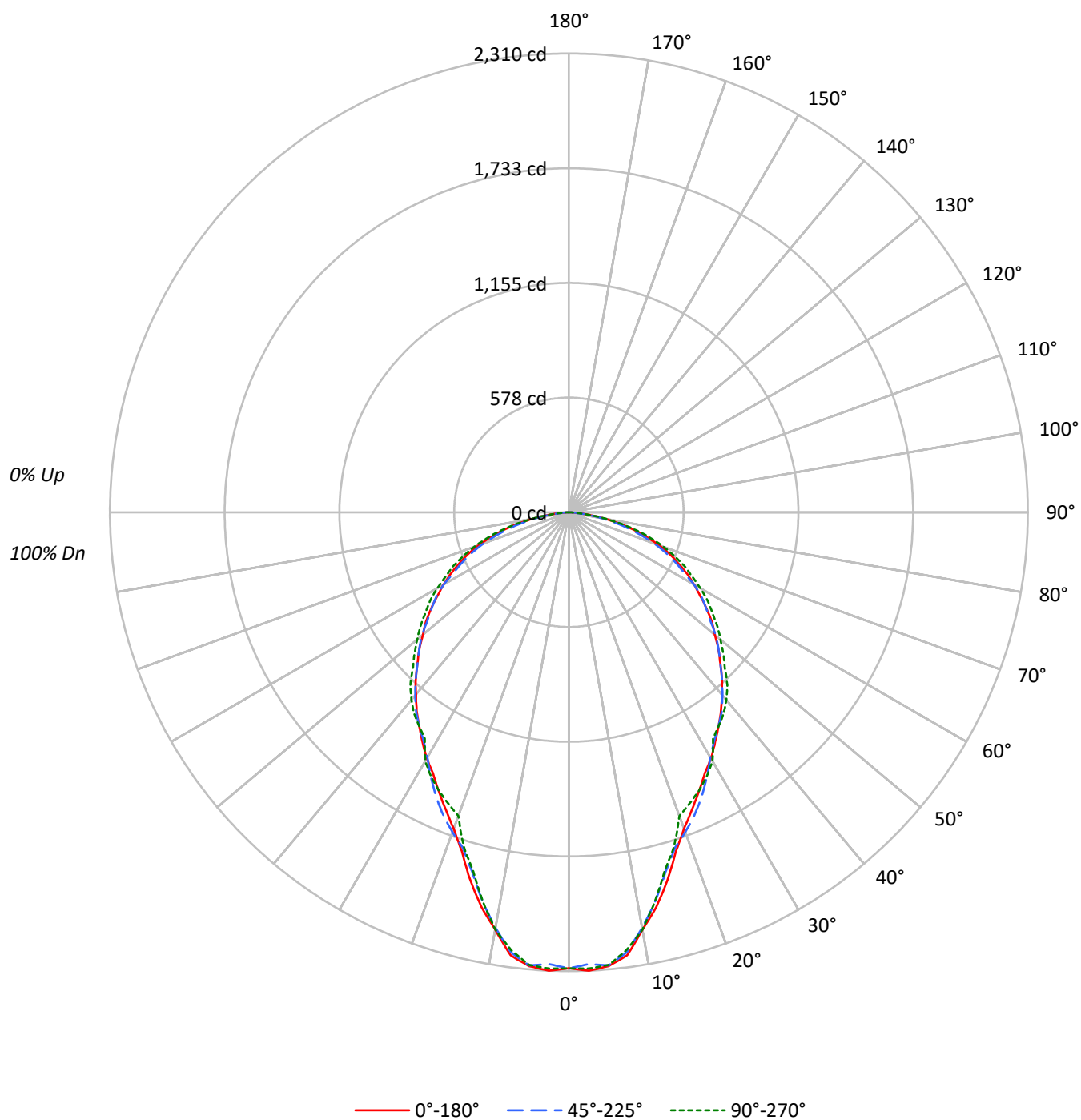
Lumens per Lamp: N/A
Luminaire Lumens: 4910.4 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3089	3089	3089
5°	3098	3093	3090
10°	2915	2902	2914
15°	2671	2613	2598
20°	2426	2453	2328
25°	2301	2347	2297
30°	2222	2213	2246
35°	2157	2157	2157
40°	2103	2112	2164
45°	2052	2049	2113
50°	2007	2022	2084
55°	1986	1978	2067
60°	1960	1957	2056
65°	1935	1874	2045
70°	1898	1790	1992
75°	1757	1589	1843
80°	1425	1296	1462
85°	903	810	792



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	4.3
10°-20°	533.1	10.9
20°-30°	720.0	14.7
30°-40°	824.5	16.8
40°-50°	844.6	17.2
50°-60°	766.3	15.6
60°-70°	598.1	12.2
70°-80°	339.2	6.9
80°-90°	71.2	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°	1466.4	29.9
0°-40°	2290.9	46.7
0°-60°	3901.9	79.5
0°-90°	4910.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4910.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2296	2296	2296	2296	2296	
5°	2294	2267	2290	2295	2288	214
15°	1918	1924	1876	1885	1865	536
25°	1550	1570	1581	1543	1547	715
35°	1313	1316	1313	1315	1313	823
45°	1078	1086	1077	1121	1110	834
55°	846	845	843	873	881	757
65°	608	595	589	616	642	602
75°	338	313	306	324	355	353
85°	58	52	52	49	51	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2296.1	2296.1	2296.1	2296.1	2296.1
2.5°	2310.4	2292.5	2277.0	2302.0	2299.6
5°	2293.7	2267.4	2290.1	2294.9	2287.7
7.5°	2249.5	2232.8	2234.0	2224.4	2223.2
10°	2133.7	2143.2	2124.1	2140.8	2132.5
12.5°	2034.6	2040.5	2007.1	2014.3	2004.7
15°	1917.6	1923.5	1875.8	1885.3	1865.0
17.5°	1789.8	1811.3	1771.9	1783.8	1762.3
20°	1694.3	1712.2	1713.4	1694.3	1626.2
22.5°	1619.1	1637.0	1651.3	1594.0	1586.8
25°	1549.8	1570.1	1580.9	1542.6	1547.4
27.5°	1480.6	1503.2	1503.2	1511.6	1500.9
30°	1430.4	1440.0	1424.4	1455.5	1445.9
32.5°	1370.7	1374.3	1361.2	1383.8	1350.4
35°	1313.4	1315.8	1313.4	1314.6	1313.4
37.5°	1258.5	1252.5	1263.3	1256.1	1278.8
40°	1197.6	1197.6	1202.4	1214.3	1232.2
42.5°	1141.5	1146.2	1140.3	1173.7	1180.9
45°	1078.2	1086.5	1077.0	1121.2	1110.4
47.5°	1020.9	1024.5	1022.1	1051.9	1054.3
50°	958.8	963.6	965.9	992.2	995.8
52.5°	907.4	906.2	897.9	936.1	942.1
55°	846.5	845.4	843.0	872.8	881.2
57.5°	784.5	785.7	791.6	808.3	828.6
60°	728.3	722.4	727.1	747.4	764.2
62.5°	671.0	660.3	649.5	683.0	698.5
65°	607.7	594.6	588.6	616.1	642.4
67.5°	549.2	527.7	524.2	543.3	574.3
70°	482.4	456.1	454.9	469.2	506.3
72.5°	408.3	385.7	379.7	398.8	432.2
75°	337.9	312.8	305.7	323.6	354.6
77.5°	261.5	241.2	236.4	246.0	271.0
80°	183.9	171.9	167.2	170.7	188.7
82.5°	115.8	107.5	105.1	103.9	113.4
85°	58.5	52.5	52.5	49.0	51.3
87.5°	17.9	16.7	15.5	11.9	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)