

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: P486962

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-30-120-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: P486962
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-LD4-2HI-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

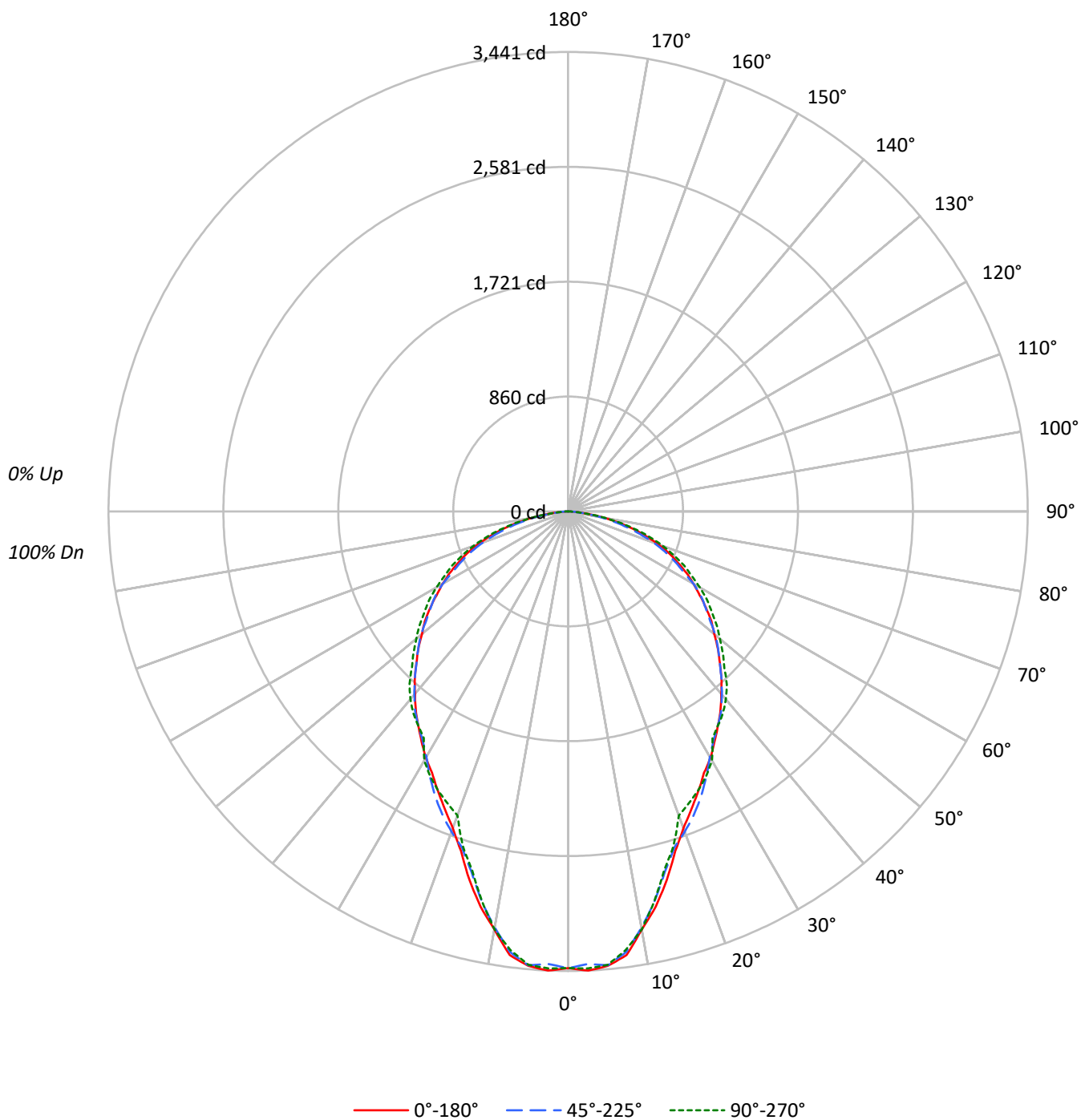
Lumens per Lamp: N/A
Luminaire Lumens: 7313.7 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4601	4601	4601
5°	4614	4607	4602
10°	4342	4322	4339
15°	3978	3892	3869
20°	3613	3654	3468
25°	3427	3496	3422
30°	3310	3296	3346
35°	3213	3213	3213
40°	3133	3145	3224
45°	3056	3052	3147
50°	2989	3012	3105
55°	2958	2945	3079
60°	2919	2914	3063
65°	2882	2791	3046
70°	2827	2666	2966
75°	2616	2367	2746
80°	2122	1929	2177
85°	1345	1207	1181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.6	4.3
10°-20°	794.1	10.9
20°-30°	1072.4	14.7
30°-40°	1228.1	16.8
40°-50°	1257.9	17.2
50°-60°	1141.4	15.6
60°-70°	890.8	12.2
70°-80°	505.3	6.9
80°-90°	106.1	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°	2184.1	29.9
0°-40°	3412.2	46.7
0°-60°	5811.5	79.5
0°-90°	7313.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7313.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3420	3420	3420	3420	3420	
5°	3416	3377	3411	3418	3407	319
15°	2856	2865	2794	2808	2778	798
25°	2308	2339	2355	2298	2305	1065
35°	1956	1960	1956	1958	1956	1225
45°	1606	1618	1604	1670	1654	1242
55°	1261	1259	1256	1300	1312	1127
65°	905	886	877	918	957	897
75°	503	466	455	482	528	527
85°	87	78	78	73	76	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3419.8	3419.8	3419.8	3419.8	3419.8
2.5°	3441.2	3414.5	3391.4	3428.7	3425.2
5°	3416.3	3377.1	3410.9	3418.0	3407.4
7.5°	3350.5	3325.6	3327.4	3313.1	3311.3
10°	3178.0	3192.2	3163.7	3188.6	3176.2
12.5°	3030.4	3039.3	2989.5	3000.1	2985.9
15°	2856.1	2865.0	2793.8	2808.1	2777.8
17.5°	2665.8	2697.8	2639.1	2656.9	2624.9
20°	2523.5	2550.2	2552.0	2523.5	2422.2
22.5°	2411.5	2438.2	2459.5	2374.1	2363.5
25°	2308.3	2338.6	2354.6	2297.7	2304.8
27.5°	2205.2	2239.0	2239.0	2251.4	2235.4
30°	2130.5	2144.7	2121.6	2167.8	2153.6
32.5°	2041.6	2046.9	2027.4	2061.1	2011.3
35°	1956.2	1959.8	1956.2	1958.0	1956.2
37.5°	1874.4	1865.5	1881.5	1870.9	1904.6
40°	1783.7	1783.7	1790.8	1808.6	1835.3
42.5°	1700.1	1707.2	1698.4	1748.1	1758.8
45°	1605.9	1618.3	1604.1	1669.9	1653.9
47.5°	1520.5	1525.9	1522.3	1566.8	1570.3
50°	1428.0	1435.2	1438.7	1477.8	1483.2
52.5°	1351.6	1349.8	1337.3	1394.3	1403.1
55°	1260.9	1259.1	1255.5	1300.0	1312.4
57.5°	1168.4	1170.2	1179.1	1204.0	1234.2
60°	1084.8	1075.9	1083.0	1113.3	1138.2
62.5°	999.4	983.4	967.4	1017.2	1040.4
65°	905.2	885.6	876.7	917.6	956.8
67.5°	818.1	786.0	780.7	809.2	855.4
70°	718.5	679.3	677.6	698.9	754.0
72.5°	608.2	574.4	565.5	594.0	643.8
75°	503.3	465.9	455.3	481.9	528.2
77.5°	389.5	359.2	352.1	366.3	403.7
80°	273.9	256.1	249.0	254.3	281.0
82.5°	172.5	160.1	156.5	154.7	168.9
85°	87.1	78.2	78.2	72.9	76.5
87.5°	26.7	24.9	23.1	17.8	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)