

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: P486964

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-35-120-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: P486964
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-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

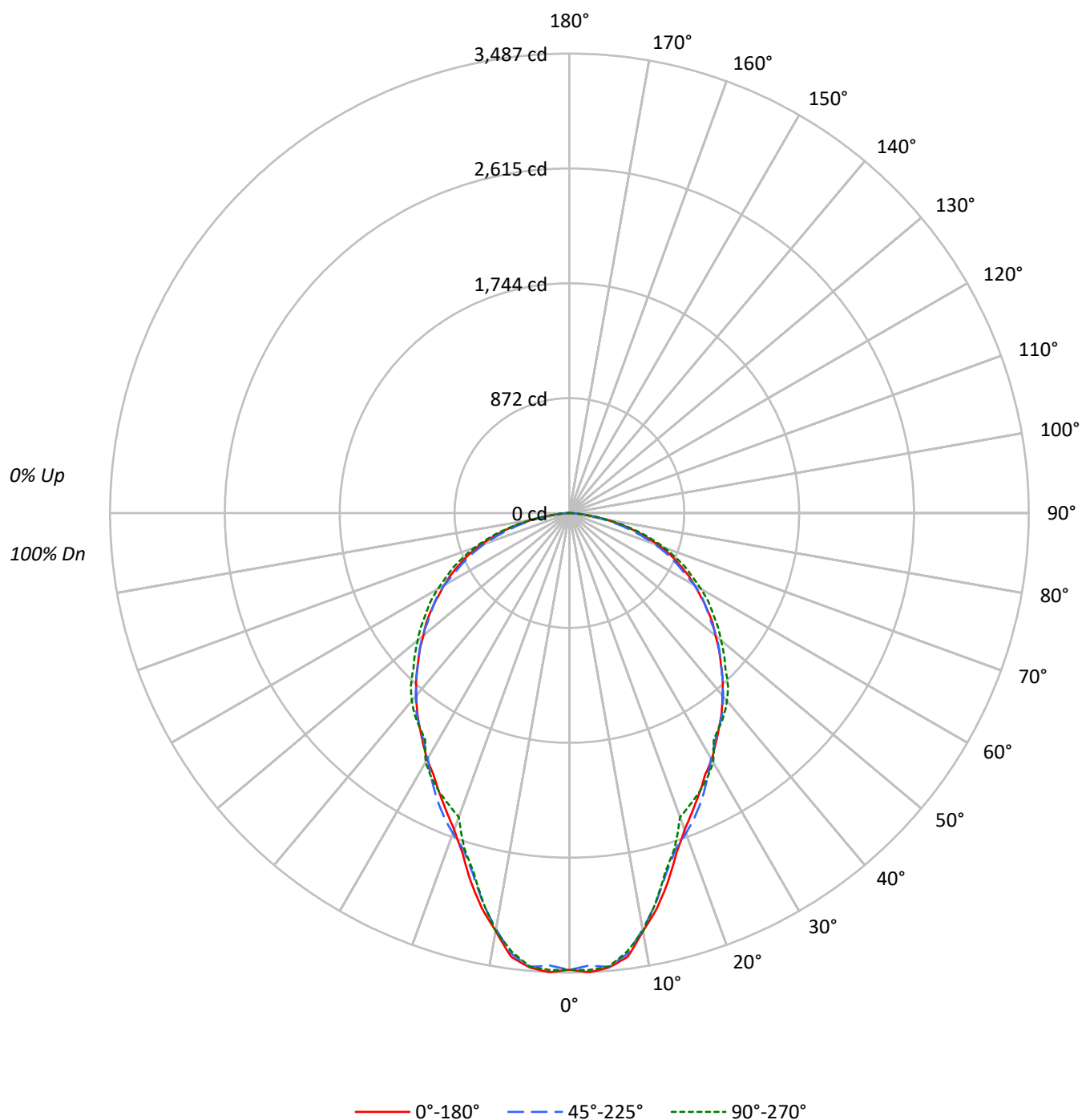
Lumens per Lamp: N/A
Luminaire Lumens: 7411.4 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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°	4663	4663	4663
5°	4676	4668	4664
10°	4400	4380	4397
15°	4031	3944	3921
20°	3662	3703	3514
25°	3473	3542	3467
30°	3354	3340	3391
35°	3256	3256	3256
40°	3175	3188	3267
45°	3096	3093	3189
50°	3029	3052	3146
55°	2997	2985	3120
60°	2958	2953	3104
65°	2920	2829	3087
70°	2864	2701	3006
75°	2651	2398	2782
80°	2150	1955	2206
85°	1363	1224	1196



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.9	4.3
10°-20°	804.7	10.9
20°-30°	1086.7	14.7
30°-40°	1244.5	16.8
40°-50°	1274.7	17.2
50°-60°	1156.6	15.6
60°-70°	902.7	12.2
70°-80°	512.0	6.9
80°-90°	107.5	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°	2213.3	29.9
0°-40°	3457.8	46.7
0°-60°	5889.2	79.5
0°-90°	7411.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7411.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3466	3466	3466	3466	3466	
5°	3462	3422	3456	3464	3453	323
15°	2894	2903	2831	2846	2815	809
25°	2339	2370	2386	2328	2336	1079
35°	1982	1986	1982	1984	1982	1242
45°	1627	1640	1626	1692	1676	1258
55°	1278	1276	1272	1317	1330	1142
65°	917	898	888	930	970	909
75°	510	472	461	488	535	534
85°	88	79	79	74	78	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3465.5	3465.5	3465.5	3465.5	3465.5
2.5°	3487.1	3460.1	3436.7	3474.5	3470.9
5°	3461.9	3422.3	3456.5	3463.7	3452.9
7.5°	3395.2	3370.0	3371.8	3357.4	3355.6
10°	3220.4	3234.8	3206.0	3231.2	3218.6
12.5°	3070.8	3079.9	3029.4	3040.2	3025.8
15°	2894.2	2903.2	2831.2	2845.6	2814.9
17.5°	2701.4	2733.8	2674.4	2692.4	2660.0
20°	2557.2	2584.3	2586.1	2557.2	2454.5
22.5°	2443.7	2470.7	2492.4	2405.9	2395.0
25°	2339.2	2369.8	2386.0	2328.4	2335.6
27.5°	2234.7	2268.9	2268.9	2281.5	2265.3
30°	2159.0	2173.4	2149.9	2196.8	2182.4
32.5°	2068.9	2074.3	2054.4	2088.7	2038.2
35°	1982.4	1986.0	1982.4	1984.2	1982.4
37.5°	1899.5	1890.4	1906.7	1895.8	1930.1
40°	1807.5	1807.5	1814.8	1832.8	1859.8
42.5°	1722.8	1730.1	1721.0	1771.5	1782.3
45°	1627.3	1639.9	1625.5	1692.2	1676.0
47.5°	1540.8	1546.2	1542.6	1587.7	1591.3
50°	1447.1	1454.3	1457.9	1497.6	1503.0
52.5°	1369.6	1367.8	1355.2	1412.9	1421.9
55°	1277.7	1275.9	1272.3	1317.4	1330.0
57.5°	1184.0	1185.8	1194.8	1220.0	1250.7
60°	1099.3	1090.3	1097.5	1128.1	1153.4
62.5°	1012.8	996.6	980.4	1030.8	1054.3
65°	917.3	897.5	888.5	929.9	969.5
67.5°	829.0	796.5	791.1	820.0	866.8
70°	728.1	688.4	686.6	708.2	764.1
72.5°	616.3	582.1	573.1	601.9	652.4
75°	510.0	472.2	461.3	488.4	535.2
77.5°	394.7	364.0	356.8	371.2	409.1
80°	277.5	259.5	252.3	257.7	284.7
82.5°	174.8	162.2	158.6	156.8	171.2
85°	88.3	79.3	79.3	73.9	77.5
87.5°	27.0	25.2	23.4	18.0	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)