

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: P484986

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1HI-40-120-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: P484986
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-12-4-INS-89BC-LD4-1HI-40-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

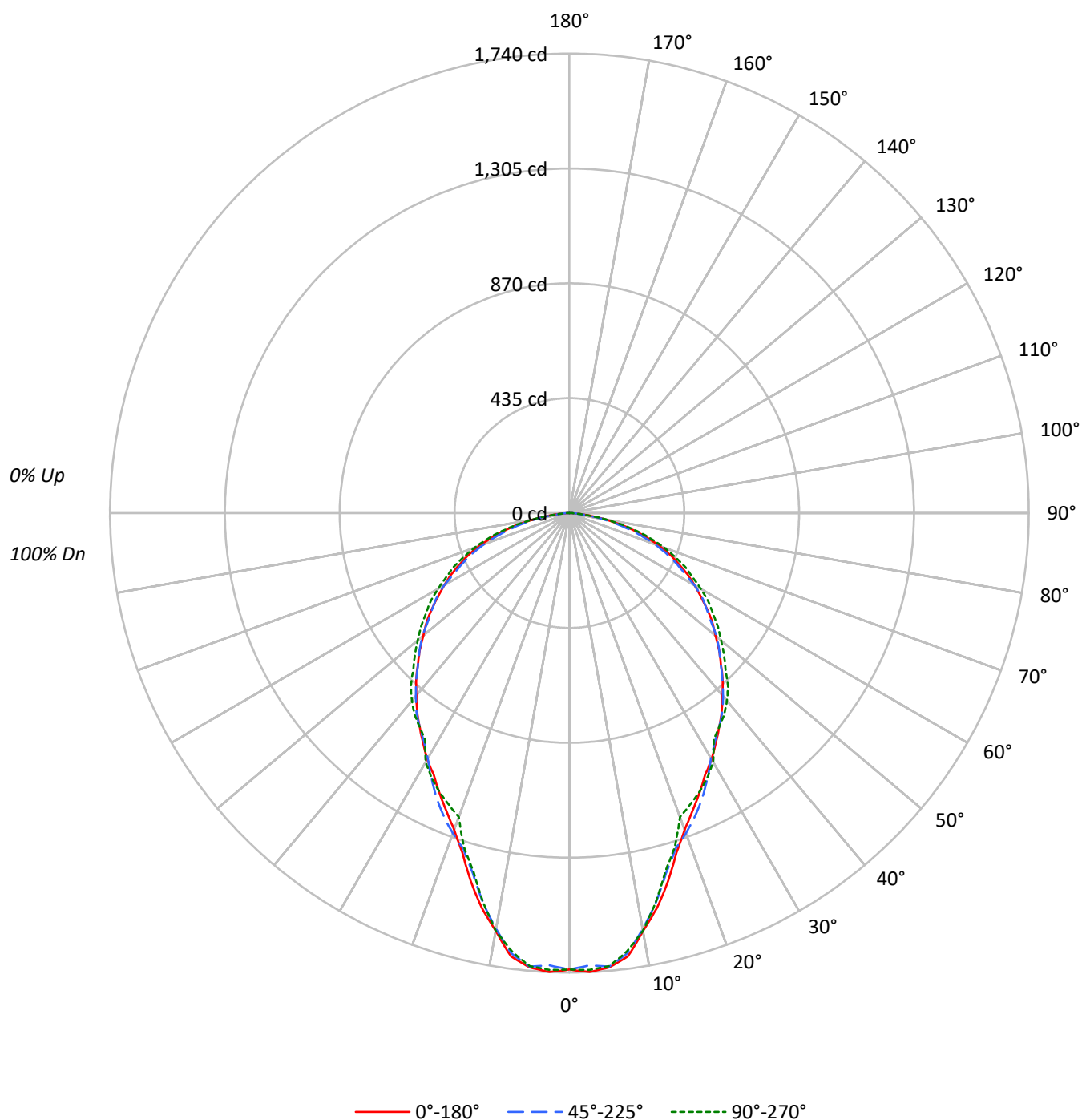
Lumens per Lamp: N/A
Luminaire Lumens: 3697.2 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	4652	4652	4652
5°	4665	4658	4653
10°	4390	4370	4387
15°	4022	3935	3912
20°	3653	3694	3506
25°	3465	3534	3459
30°	3347	3333	3383
35°	3249	3249	3249
40°	3168	3180	3259
45°	3089	3086	3182
50°	3022	3045	3139
55°	2990	2978	3113
60°	2951	2947	3097
65°	2914	2822	3080
70°	2858	2695	2999
75°	2645	2392	2776
80°	2145	1951	2201
85°	1362	1223	1195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.6	4.3
10°-20°	401.4	10.9
20°-30°	542.1	14.7
30°-40°	620.8	16.8
40°-50°	635.9	17.2
50°-60°	577.0	15.6
60°-70°	450.3	12.2
70°-80°	255.4	6.9
80°-90°	53.6	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°	1104.1	29.9
0°-40°	1724.9	46.7
0°-60°	2937.8	79.5
0°-90°	3697.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3697.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1729	1729	1729	1729	1729	
5°	1727	1707	1724	1728	1722	161
15°	1444	1448	1412	1420	1404	404
25°	1167	1182	1190	1162	1165	538
35°	989	991	989	990	989	619
45°	812	818	811	844	836	628
55°	637	636	635	657	664	570
65°	458	448	443	464	484	453
75°	254	236	230	244	267	266
85°	44	40	40	37	39	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1728.8	1728.8	1728.8	1728.8	1728.8
2.5°	1739.6	1726.1	1714.4	1733.3	1731.5
5°	1727.0	1707.2	1724.3	1727.9	1722.5
7.5°	1693.7	1681.1	1682.0	1674.8	1673.9
10°	1606.5	1613.7	1599.3	1611.9	1605.6
12.5°	1531.9	1536.4	1511.2	1516.6	1509.4
15°	1443.8	1448.3	1412.3	1419.5	1404.2
17.5°	1347.6	1363.8	1334.1	1343.1	1326.9
20°	1275.7	1289.2	1290.1	1275.7	1224.4
22.5°	1219.0	1232.5	1243.3	1200.2	1194.8
25°	1166.9	1182.2	1190.3	1161.5	1165.1
27.5°	1114.8	1131.8	1131.8	1138.1	1130.0
30°	1077.0	1084.2	1072.5	1095.9	1088.7
32.5°	1032.1	1034.8	1024.9	1041.9	1016.8
35°	988.9	990.7	988.9	989.8	988.9
37.5°	947.5	943.1	951.1	945.7	962.8
40°	901.7	901.7	905.3	914.3	927.8
42.5°	859.4	863.0	858.5	883.7	889.1
45°	811.8	818.1	810.9	844.2	836.1
47.5°	768.6	771.3	769.5	792.0	793.8
50°	721.9	725.5	727.3	747.1	749.8
52.5°	683.2	682.3	676.0	704.8	709.3
55°	637.4	636.5	634.7	657.2	663.5
57.5°	590.6	591.5	596.0	608.6	623.9
60°	548.4	543.9	547.5	562.8	575.4
62.5°	505.2	497.1	489.1	514.2	525.9
65°	457.6	447.7	443.2	463.9	483.7
67.5°	413.5	397.4	394.7	409.0	432.4
70°	363.2	343.4	342.5	353.3	381.2
72.5°	307.5	290.4	285.9	300.3	325.4
75°	254.4	235.5	230.1	243.6	267.0
77.5°	196.9	181.6	178.0	185.2	204.1
80°	138.4	129.5	125.9	128.6	142.0
82.5°	87.2	80.9	79.1	78.2	85.4
85°	44.1	39.6	39.6	36.9	38.7
87.5°	13.5	12.6	11.7	9.0	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)