

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: P485030

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-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: P485030
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-LD4-2LO-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

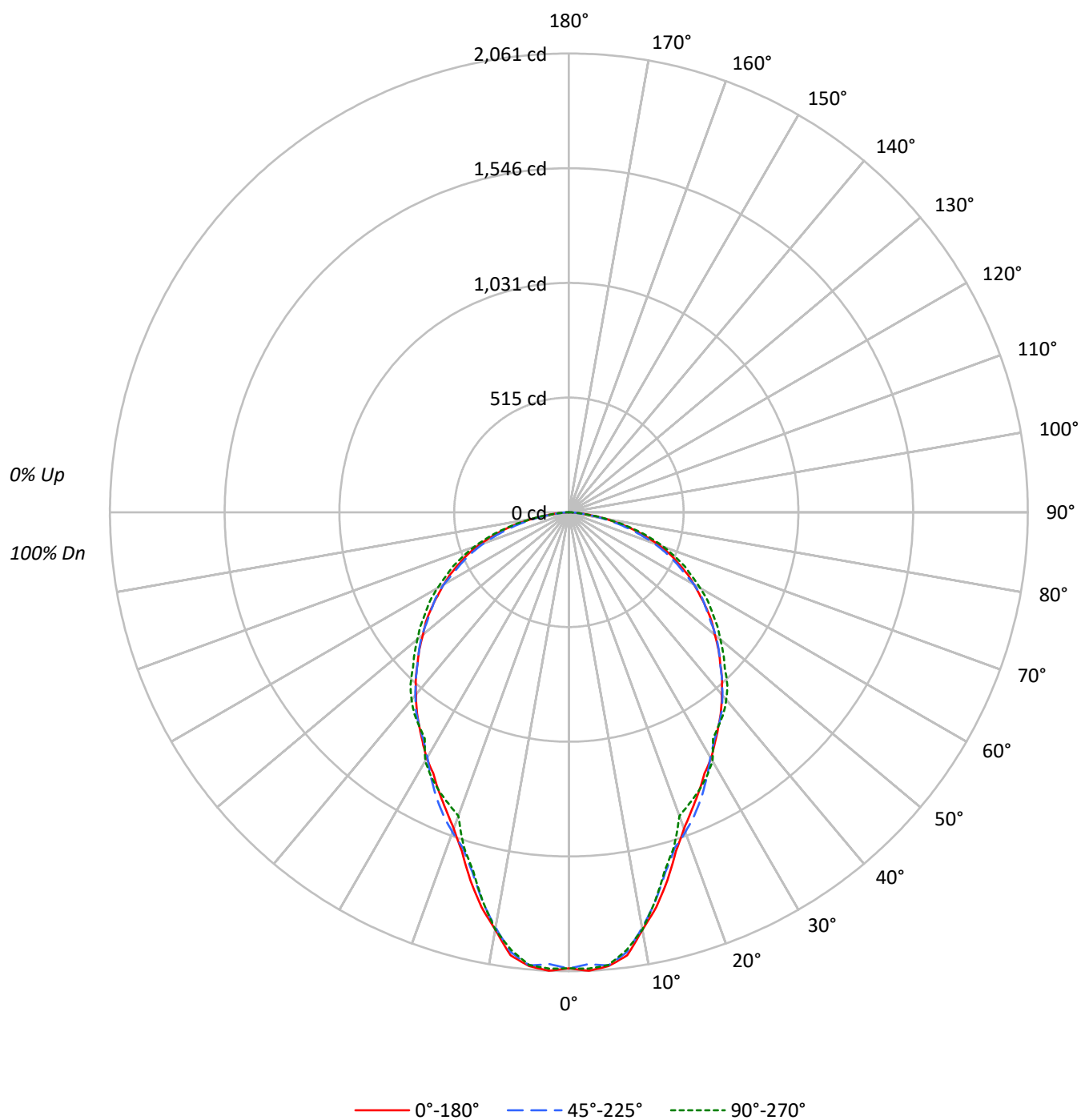
Lumens per Lamp: N/A
Luminaire Lumens: 4380.1 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5511	5511	5511
5°	5527	5518	5512
10°	5201	5177	5198
15°	4765	4661	4635
20°	4328	4377	4154
25°	4105	4187	4098
30°	3965	3948	4008
35°	3849	3849	3849
40°	3752	3768	3861
45°	3660	3656	3769
50°	3580	3607	3719
55°	3543	3528	3688
60°	3497	3491	3668
65°	3452	3344	3649
70°	3386	3193	3553
75°	3134	2835	3289
80°	2541	2311	2608
85°	1612	1448	1414



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.2	4.3
10°-20°	475.6	10.9
20°-30°	642.3	14.7
30°-40°	735.5	16.8
40°-50°	753.4	17.2
50°-60°	683.6	15.6
60°-70°	533.5	12.2
70°-80°	302.6	6.9
80°-90°	63.5	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°	1308.1	29.9
0°-40°	2043.5	46.7
0°-60°	3480.5	79.5
0°-90°	4380.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4380.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2048	2048	2048	2048	2048	
5°	2046	2022	2043	2047	2041	191
15°	1710	1716	1673	1682	1664	478
25°	1382	1400	1410	1376	1380	638
35°	1172	1174	1172	1173	1172	734
45°	962	969	961	1000	990	744
55°	755	754	752	779	786	675
65°	542	530	525	550	573	537
75°	301	279	273	289	316	315
85°	52	47	47	44	46	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2048.1	2048.1	2048.1	2048.1	2048.1
2.5°	2060.9	2044.9	2031.1	2053.4	2051.3
5°	2046.0	2022.5	2042.8	2047.0	2040.6
7.5°	2006.6	1991.7	1992.7	1984.2	1983.1
10°	1903.3	1911.8	1894.7	1909.6	1902.2
12.5°	1814.9	1820.2	1790.4	1796.7	1788.2
15°	1710.5	1715.8	1673.2	1681.7	1663.6
17.5°	1596.5	1615.7	1580.5	1591.2	1572.0
20°	1511.3	1527.3	1528.4	1511.3	1450.6
22.5°	1444.2	1460.2	1473.0	1421.8	1415.5
25°	1382.4	1400.5	1410.1	1376.0	1380.3
27.5°	1320.7	1340.9	1340.9	1348.4	1338.8
30°	1275.9	1284.5	1270.6	1298.3	1289.8
32.5°	1222.7	1225.9	1214.2	1234.4	1204.6
35°	1171.6	1173.7	1171.6	1172.6	1171.6
37.5°	1122.6	1117.2	1126.8	1120.4	1140.7
40°	1068.2	1068.2	1072.5	1083.2	1099.1
42.5°	1018.2	1022.5	1017.1	1046.9	1053.3
45°	961.7	969.2	960.7	1000.1	990.5
47.5°	910.6	913.8	911.7	938.3	940.4
50°	855.2	859.5	861.6	885.1	888.3
52.5°	809.4	808.4	800.9	835.0	840.3
55°	755.1	754.1	751.9	778.6	786.0
57.5°	699.7	700.8	706.1	721.0	739.1
60°	649.7	644.4	648.6	666.7	681.6
62.5°	598.6	589.0	579.4	609.2	623.1
65°	542.1	530.4	525.1	549.6	573.0
67.5°	489.9	470.8	467.6	484.6	512.3
70°	430.3	406.9	405.8	418.6	451.6
72.5°	364.2	344.0	338.7	355.7	385.5
75°	301.4	279.0	272.7	288.6	316.3
77.5°	233.2	215.1	210.9	219.4	241.8
80°	164.0	153.4	149.1	152.3	168.3
82.5°	103.3	95.9	93.7	92.7	101.2
85°	52.2	46.9	46.9	43.7	45.8
87.5°	16.0	14.9	13.8	10.7	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)