

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: P484987

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1HI-40-120-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: P484987
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
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

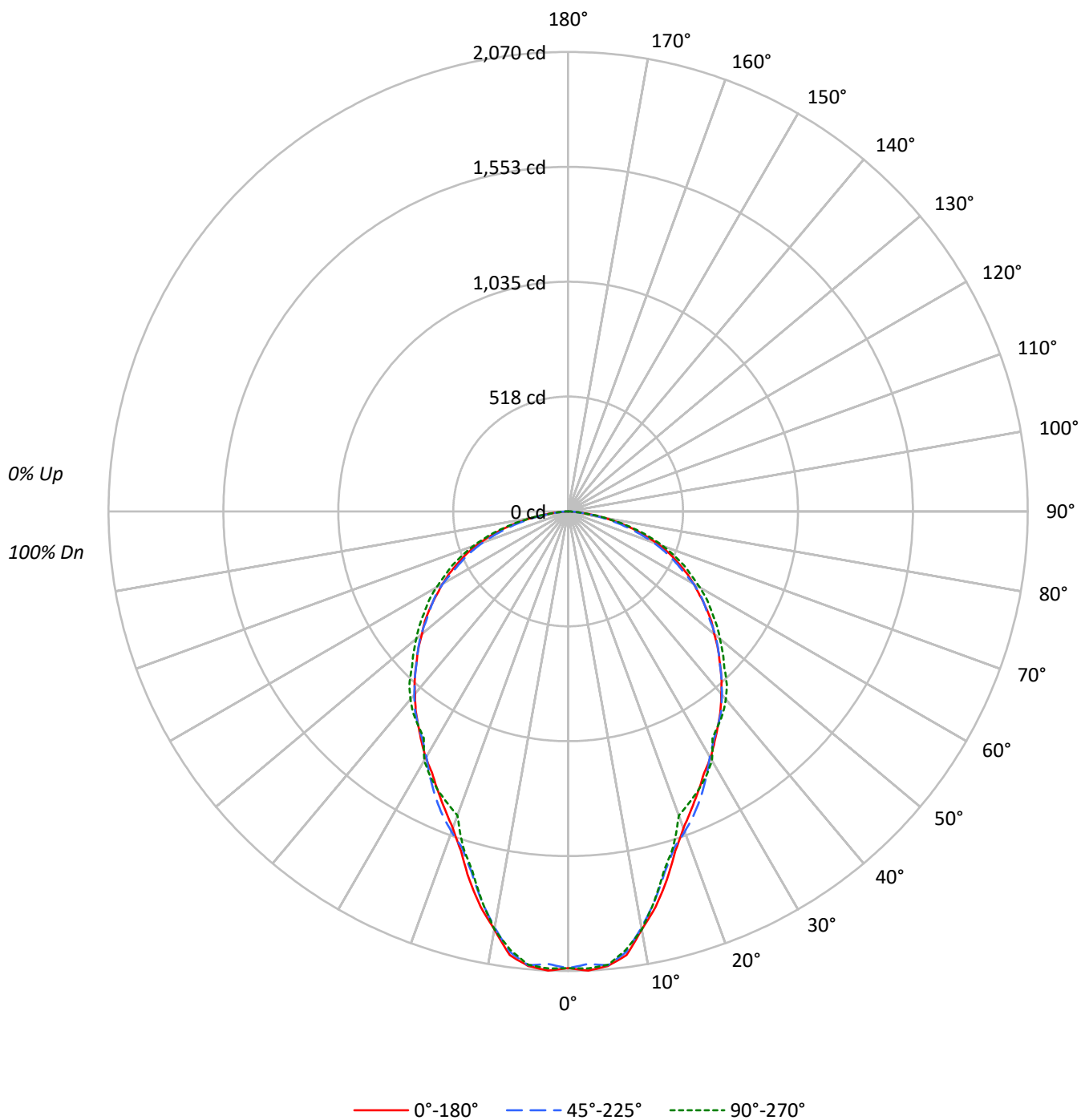
Lumens per Lamp: N/A
Luminaire Lumens: 4400.2 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				10				0
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°	5537	5537	5537
5°	5552	5543	5538
10°	5225	5201	5222
15°	4787	4683	4656
20°	4348	4397	4173
25°	4124	4206	4117
30°	3983	3966	4026
35°	3866	3866	3866
40°	3770	3785	3879
45°	3677	3673	3787
50°	3597	3624	3736
55°	3559	3544	3704
60°	3513	3507	3686
65°	3468	3359	3665
70°	3401	3207	3570
75°	3148	2848	3304
80°	2554	2321	2620
85°	1618	1454	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.1	4.3
10°-20°	477.8	10.9
20°-30°	645.2	14.7
30°-40°	738.9	16.8
40°-50°	756.8	17.2
50°-60°	686.7	15.6
60°-70°	536.0	12.2
70°-80°	304.0	6.9
80°-90°	63.8	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°	1314.1	29.9
0°-40°	2052.9	46.7
0°-60°	3496.4	79.5
0°-90°	4400.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4400.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2058	2058	2058	2058	2058	
5°	2055	2032	2052	2056	2050	192
15°	1718	1724	1681	1689	1671	480
25°	1389	1407	1417	1382	1387	641
35°	1177	1179	1177	1178	1177	737
45°	966	974	965	1005	995	747
55°	759	758	755	782	790	678
65°	545	533	528	552	576	540
75°	303	280	274	290	318	317
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°	2057.5	2057.5	2057.5	2057.5	2057.5
2.5°	2070.3	2054.3	2040.4	2062.8	2060.7
5°	2055.4	2031.8	2052.1	2056.4	2050.0
7.5°	2015.8	2000.8	2001.9	1993.3	1992.2
10°	1912.0	1920.5	1903.4	1918.4	1910.9
12.5°	1823.2	1828.5	1798.6	1805.0	1796.4
15°	1718.3	1723.7	1680.9	1689.4	1671.2
17.5°	1603.8	1623.1	1587.8	1598.5	1579.2
20°	1518.2	1534.3	1535.4	1518.2	1457.3
22.5°	1450.8	1466.9	1479.7	1428.4	1422.0
25°	1388.8	1407.0	1416.6	1382.4	1386.6
27.5°	1326.7	1347.1	1347.1	1354.5	1344.9
30°	1281.8	1290.3	1276.4	1304.3	1295.7
32.5°	1228.3	1231.5	1219.7	1240.1	1210.1
35°	1176.9	1179.1	1176.9	1178.0	1176.9
37.5°	1127.7	1122.4	1132.0	1125.6	1145.9
40°	1073.2	1073.2	1077.4	1088.1	1104.2
42.5°	1022.9	1027.1	1021.8	1051.8	1058.2
45°	966.2	973.6	965.1	1004.7	995.0
47.5°	914.8	918.0	915.9	942.6	944.8
50°	859.2	863.4	865.6	889.1	892.3
52.5°	813.2	812.1	804.6	838.8	844.2
55°	758.6	757.5	755.4	782.1	789.6
57.5°	703.0	704.0	709.4	724.4	742.5
60°	652.7	647.3	651.6	669.8	684.8
62.5°	601.3	591.7	582.0	612.0	625.9
65°	544.6	532.8	527.5	552.1	575.6
67.5°	492.2	472.9	469.7	486.8	514.6
70°	432.3	408.7	407.6	420.5	453.7
72.5°	365.9	345.6	340.2	357.4	387.3
75°	302.8	280.3	273.9	290.0	317.8
77.5°	234.3	216.1	211.8	220.4	242.9
80°	164.8	154.1	149.8	153.0	169.1
82.5°	103.8	96.3	94.2	93.1	101.6
85°	52.4	47.1	47.1	43.9	46.0
87.5°	16.0	15.0	13.9	10.7	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)