

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: P485026

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-20-120-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: P485026
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-20-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

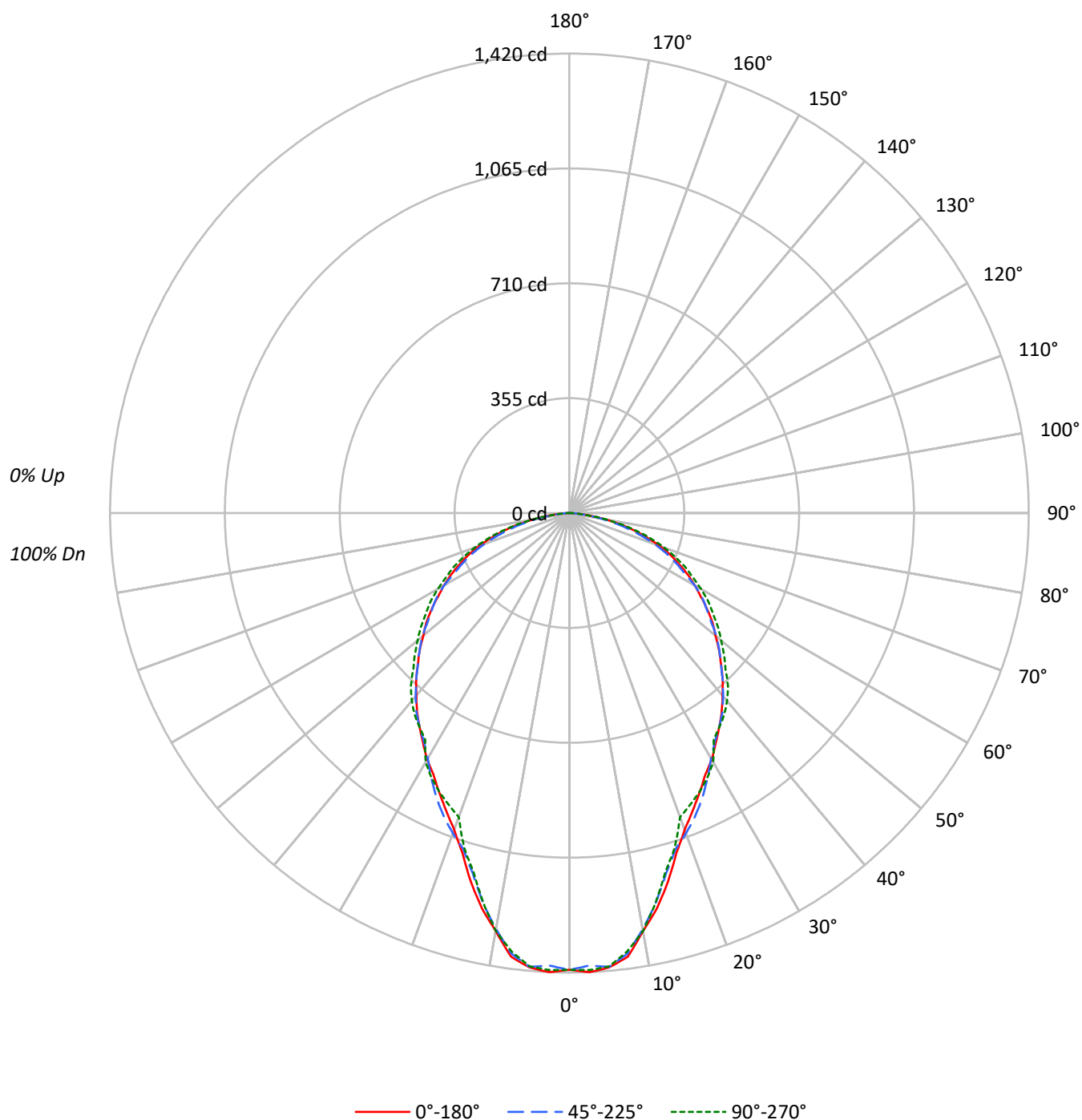
Lumens per Lamp: N/A
Luminaire Lumens: 3018.3 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3798	3798	3798
5°	3809	3803	3799
10°	3584	3568	3582
15°	3284	3212	3194
20°	2982	3016	2863
25°	2828	2885	2824
30°	2732	2721	2762
35°	2652	2652	2652
40°	2586	2596	2661
45°	2522	2519	2597
50°	2467	2485	2563
55°	2441	2431	2541
60°	2410	2406	2528
65°	2379	2304	2514
70°	2333	2200	2448
75°	2159	1954	2267
80°	1751	1592	1798
85°	1112	997	976



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.1	4.3
10°-20°	327.7	10.9
20°-30°	442.6	14.7
30°-40°	506.8	16.8
40°-50°	519.1	17.2
50°-60°	471.0	15.6
60°-70°	367.6	12.2
70°-80°	208.5	6.9
80°-90°	43.8	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°	901.4	29.9
0°-40°	1408.2	46.7
0°-60°	2398.4	79.5
0°-90°	3018.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3018.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1411	1411	1411	1411	1411	
5°	1410	1394	1408	1411	1406	132
15°	1179	1182	1153	1159	1146	329
25°	953	965	972	948	951	440
35°	807	809	807	808	807	506
45°	663	668	662	689	682	512
55°	520	520	518	536	542	465
65°	374	366	362	379	395	370
75°	208	192	188	199	218	217
85°	36	32	32	30	32	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1411.3	1411.3	1411.3	1411.3	1411.3
2.5°	1420.1	1409.1	1399.6	1415.0	1413.5
5°	1409.9	1393.7	1407.7	1410.6	1406.2
7.5°	1382.7	1372.4	1373.2	1367.3	1366.6
10°	1311.5	1317.4	1305.6	1315.9	1310.8
12.5°	1250.6	1254.3	1233.7	1238.1	1232.3
15°	1178.7	1182.3	1153.0	1158.9	1146.4
17.5°	1100.1	1113.4	1089.1	1096.5	1083.3
20°	1041.4	1052.4	1053.2	1041.4	999.6
22.5°	995.2	1006.2	1015.0	979.8	975.4
25°	952.6	965.1	971.7	948.2	951.2
27.5°	910.1	924.0	924.0	929.1	922.5
30°	879.2	885.1	875.6	894.7	888.8
32.5°	842.5	844.7	836.7	850.6	830.1
35°	807.3	808.8	807.3	808.0	807.3
37.5°	773.6	769.9	776.5	772.1	786.0
40°	736.1	736.1	739.1	746.4	757.4
42.5°	701.6	704.6	700.9	721.4	725.8
45°	662.7	667.9	662.0	689.2	682.5
47.5°	627.5	629.7	628.2	646.6	648.1
50°	589.3	592.3	593.7	609.9	612.1
52.5°	557.8	557.0	551.9	575.4	579.1
55°	520.4	519.6	518.1	536.5	541.6
57.5°	482.2	482.9	486.6	496.9	509.3
60°	447.7	444.0	447.0	459.4	469.7
62.5°	412.5	405.9	399.3	419.8	429.3
65°	373.6	365.5	361.8	378.7	394.9
67.5°	337.6	324.4	322.2	333.9	353.0
70°	296.5	280.4	279.6	288.4	311.2
72.5°	251.0	237.1	233.4	245.1	265.7
75°	207.7	192.3	187.9	198.9	218.0
77.5°	160.7	148.3	145.3	151.2	166.6
80°	113.0	105.7	102.7	105.0	116.0
82.5°	71.2	66.1	64.6	63.9	69.7
85°	36.0	32.3	32.3	30.1	31.6
87.5°	11.0	10.3	9.5	7.3	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)