

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: P485723

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-20-120-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: P485723
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-24-2-INS-89BC-LD4-3STD-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

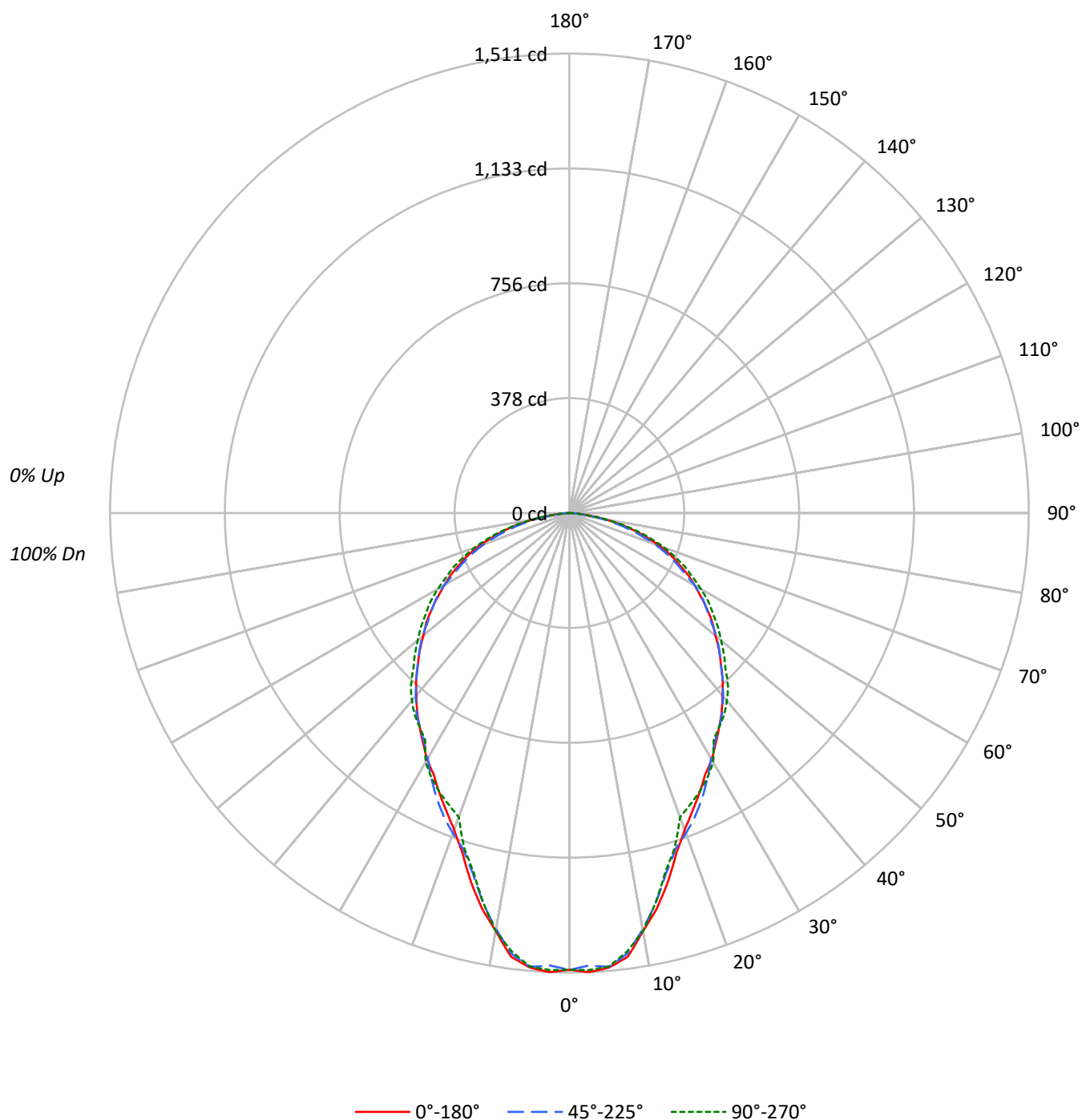
Lumens per Lamp: N/A
Luminaire Lumens: 3211.2 lumens
Efficiency: N/A
Efficacy: 64.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	4041	4041	4041
5°	4052	4045	4041
10°	3813	3796	3811
15°	3494	3417	3398
20°	3173	3209	3046
25°	3009	3070	3005
30°	2907	2894	2938
35°	2822	2822	2822
40°	2751	2762	2831
45°	2683	2680	2764
50°	2625	2645	2726
55°	2597	2586	2704
60°	2563	2559	2689
65°	2530	2451	2675
70°	2482	2341	2605
75°	2298	2078	2411
80°	1863	1694	1912
85°	1183	1062	1037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.5	4.3
10°-20°	348.7	10.9
20°-30°	470.9	14.7
30°-40°	539.2	16.8
40°-50°	552.3	17.2
50°-60°	501.2	15.6
60°-70°	391.1	12.2
70°-80°	221.9	6.9
80°-90°	46.6	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°	959.0	29.9
0°-40°	1498.2	46.7
0°-60°	2551.7	79.5
0°-90°	3211.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3211.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1500	1483	1498	1501	1496	140
15°	1254	1258	1227	1233	1220	350
25°	1014	1027	1034	1009	1012	468
35°	859	860	859	860	859	538
45°	705	711	704	733	726	545
55°	554	553	551	571	576	495
65°	397	389	385	403	420	394
75°	221	205	200	212	232	231
85°	38	34	34	32	34	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1501.5	1501.5	1501.5	1501.5	1501.5
2.5°	1510.9	1499.2	1489.0	1505.4	1503.9
5°	1500.0	1482.8	1497.6	1500.7	1496.1
7.5°	1471.1	1460.1	1460.9	1454.7	1453.9
10°	1395.3	1401.6	1389.1	1400.0	1394.6
12.5°	1330.5	1334.4	1312.6	1317.3	1311.0
15°	1254.0	1257.9	1226.7	1232.9	1219.7
17.5°	1170.5	1184.5	1158.7	1166.6	1152.5
20°	1108.0	1119.7	1120.5	1108.0	1063.5
22.5°	1058.8	1070.5	1079.9	1042.4	1037.7
25°	1013.5	1026.8	1033.8	1008.8	1012.0
27.5°	968.2	983.1	983.1	988.5	981.5
30°	935.4	941.7	931.5	951.8	945.6
32.5°	896.4	898.7	890.1	905.0	883.1
35°	858.9	860.5	858.9	859.7	858.9
37.5°	823.0	819.1	826.1	821.4	836.3
40°	783.2	783.2	786.3	794.1	805.8
42.5°	746.5	749.6	745.7	767.6	772.2
45°	705.1	710.6	704.3	733.2	726.2
47.5°	667.6	669.9	668.4	687.9	689.5
50°	627.0	630.1	631.7	648.9	651.2
52.5°	593.4	592.6	587.2	612.2	616.1
55°	553.6	552.8	551.3	570.8	576.3
57.5°	513.0	513.8	517.7	528.6	541.9
60°	476.3	472.4	475.5	488.8	499.7
62.5°	438.8	431.8	424.8	446.6	456.8
65°	397.4	388.9	384.9	402.9	420.1
67.5°	359.2	345.1	342.8	355.3	375.6
70°	315.5	298.3	297.5	306.9	331.1
72.5°	267.0	252.2	248.3	260.8	282.7
75°	221.0	204.6	199.9	211.6	231.9
77.5°	171.0	157.7	154.6	160.9	177.2
80°	120.2	112.4	109.3	111.7	123.4
82.5°	75.7	70.3	68.7	67.9	74.2
85°	38.3	34.4	34.4	32.0	33.6
87.5°	11.7	10.9	10.2	7.8	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)