

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: P485718

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-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: P485718
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-LD4-3LO-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

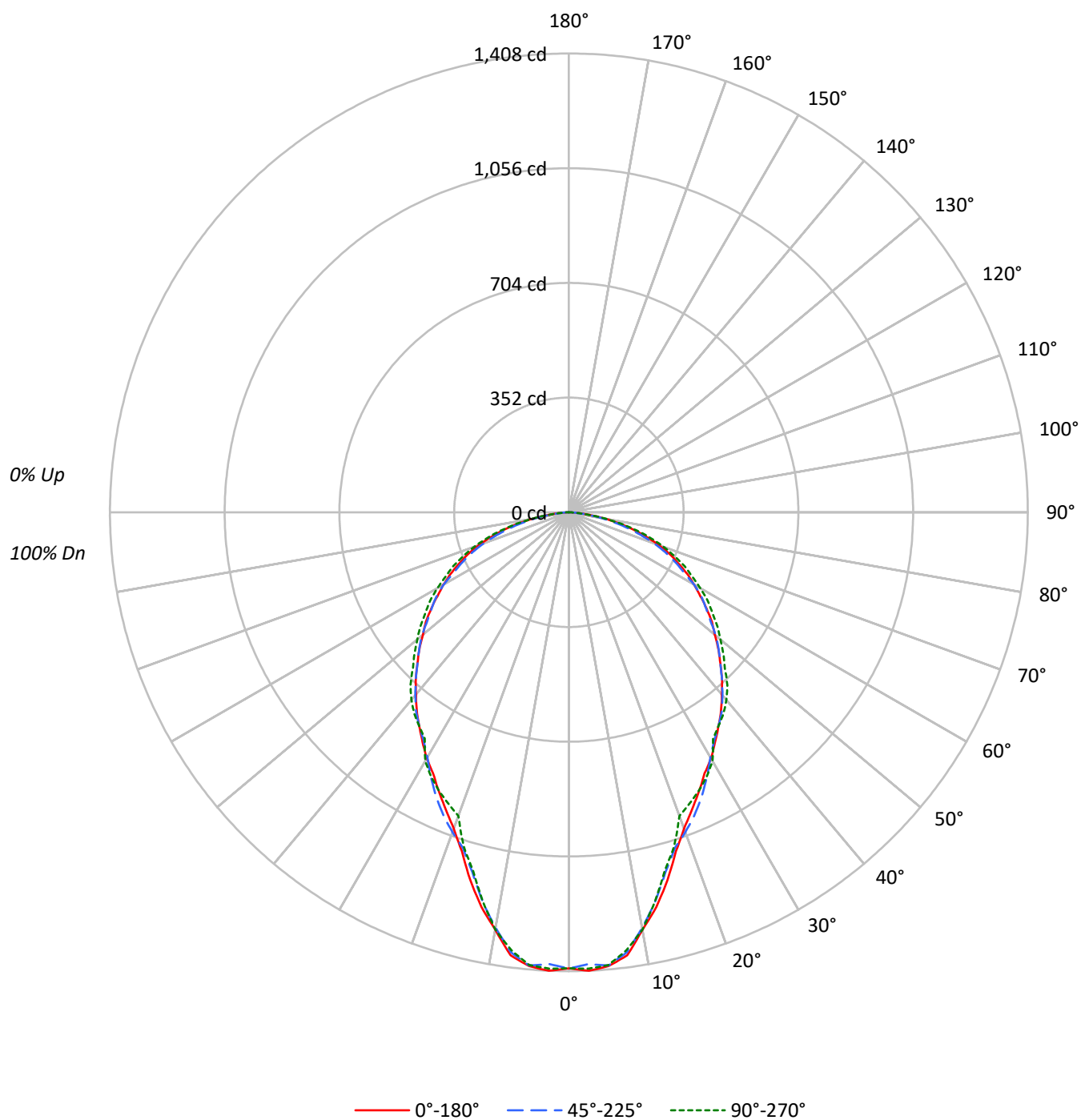
Lumens per Lamp: N/A
Luminaire Lumens: 2992.6 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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°	3765	3765	3765
5°	3776	3770	3766
10°	3553	3537	3551
15°	3256	3185	3166
20°	2957	2990	2838
25°	2804	2860	2800
30°	2709	2697	2738
35°	2629	2629	2629
40°	2564	2574	2638
45°	2501	2498	2575
50°	2446	2465	2541
55°	2420	2410	2519
60°	2389	2385	2506
65°	2358	2284	2493
70°	2313	2181	2427
75°	2141	1937	2247
80°	1737	1579	1782
85°	1102	988	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.0	4.3
10°-20°	324.9	10.9
20°-30°	438.8	14.7
30°-40°	502.5	16.8
40°-50°	514.7	17.2
50°-60°	467.0	15.6
60°-70°	364.5	12.2
70°-80°	206.8	6.9
80°-90°	43.4	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°	893.7	29.9
0°-40°	1396.2	46.7
0°-60°	2377.9	79.5
0°-90°	2992.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2992.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1399	1399	1399	1399	1399	
5°	1398	1382	1396	1399	1394	131
15°	1169	1172	1143	1149	1137	327
25°	944	957	963	940	943	436
35°	800	802	800	801	800	501
45°	657	662	656	683	677	508
55°	516	515	514	532	537	461
65°	370	362	359	376	392	367
75°	206	191	186	197	216	215
85°	36	32	32	30	31	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1399.3	1399.3	1399.3	1399.3	1399.3
2.5°	1408.0	1397.1	1387.7	1403.0	1401.5
5°	1397.9	1381.9	1395.7	1398.6	1394.2
7.5°	1370.9	1360.7	1361.5	1355.7	1354.9
10°	1300.4	1306.2	1294.5	1304.7	1299.6
12.5°	1240.0	1243.6	1223.2	1227.6	1221.8
15°	1168.6	1172.3	1143.2	1149.0	1136.6
17.5°	1090.8	1103.9	1079.9	1087.1	1074.0
20°	1032.6	1043.5	1044.2	1032.6	991.1
22.5°	986.7	997.6	1006.4	971.4	967.1
25°	944.5	956.9	963.4	940.2	943.1
27.5°	902.3	916.1	916.1	921.2	914.7
30°	871.8	877.6	868.1	887.0	881.2
32.5°	835.4	837.6	829.5	843.4	823.0
35°	800.4	801.9	800.4	801.2	800.4
37.5°	767.0	763.3	769.9	765.5	779.3
40°	729.9	729.9	732.8	740.0	751.0
42.5°	695.7	698.6	694.9	715.3	719.7
45°	657.1	662.2	656.4	683.3	676.7
47.5°	622.2	624.3	622.9	641.1	642.5
50°	584.3	587.2	588.7	604.7	606.9
52.5°	553.0	552.3	547.2	570.5	574.1
55°	515.9	515.2	513.7	531.9	537.0
57.5°	478.1	478.8	482.4	492.6	505.0
60°	443.9	440.2	443.2	455.5	465.7
62.5°	409.0	402.4	395.9	416.2	425.7
65°	370.4	362.4	358.7	375.5	391.5
67.5°	334.7	321.6	319.4	331.1	350.0
70°	294.0	278.0	277.2	286.0	308.5
72.5°	248.9	235.0	231.4	243.0	263.4
75°	205.9	190.7	186.3	197.2	216.1
77.5°	159.4	147.0	144.1	149.9	165.2
80°	112.1	104.8	101.9	104.1	115.0
82.5°	70.6	65.5	64.0	63.3	69.1
85°	35.7	32.0	32.0	29.8	31.3
87.5°	10.9	10.2	9.5	7.3	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)