

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: P485669

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-35-120-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: P485669
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-LD4-2HI-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

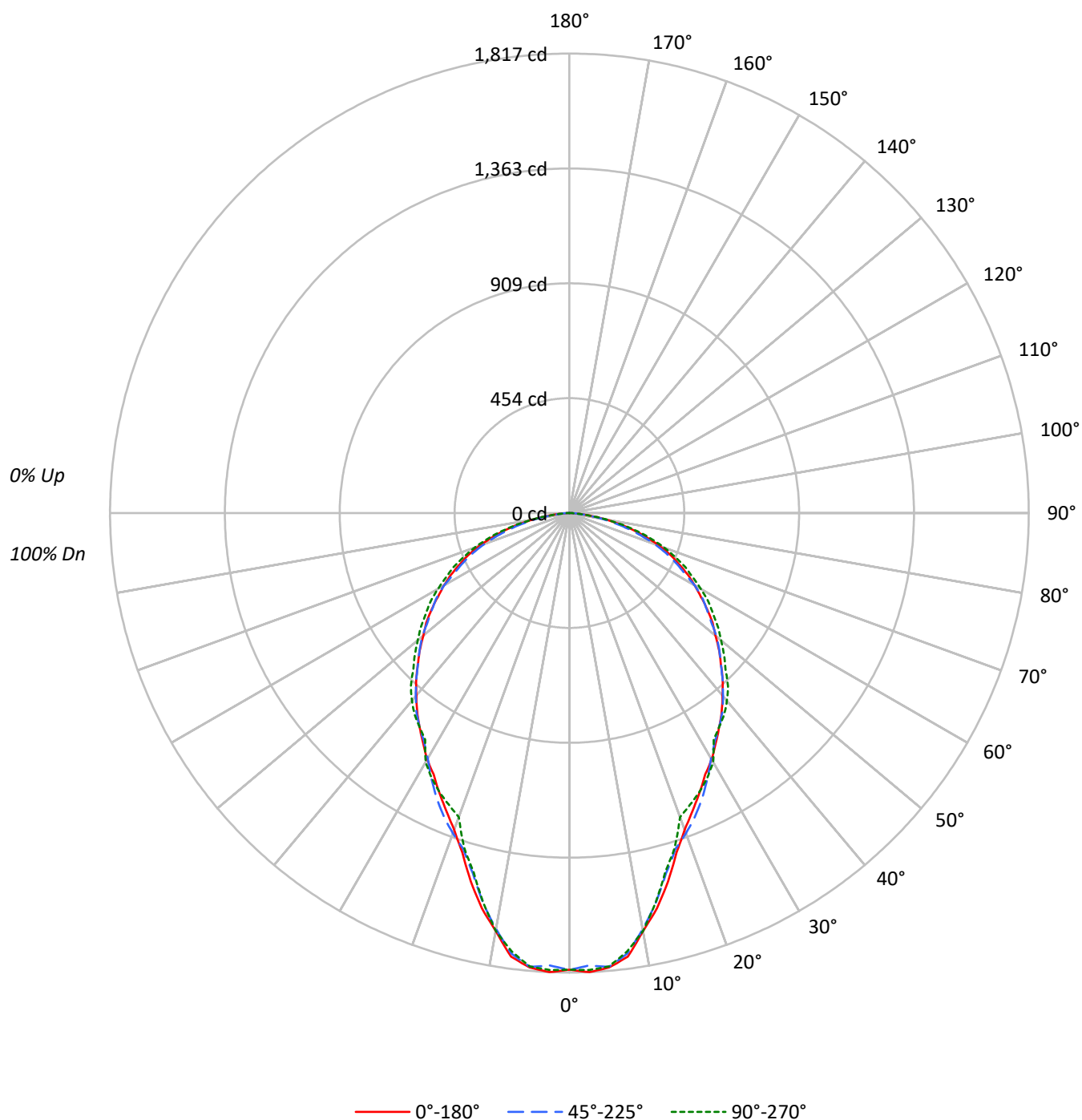
Lumens per Lamp: N/A
Luminaire Lumens: 3861.6 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	4859	4859	4859
5°	4873	4865	4860
10°	4585	4564	4582
15°	4201	4109	4086
20°	3816	3859	3662
25°	3619	3691	3613
30°	3495	3481	3533
35°	3393	3393	3393
40°	3308	3321	3404
45°	3227	3223	3323
50°	3157	3180	3278
55°	3123	3110	3251
60°	3083	3077	3234
65°	3043	2947	3217
70°	2984	2815	3132
75°	2763	2499	2900
80°	2241	2038	2300
85°	1420	1275	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	4.3
10°-20°	419.3	10.9
20°-30°	566.2	14.7
30°-40°	648.4	16.8
40°-50°	664.2	17.2
50°-60°	602.7	15.6
60°-70°	470.4	12.2
70°-80°	266.8	6.9
80°-90°	56.0	1.4
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°	1153.2	29.9
0°-40°	1801.6	46.7
0°-60°	3068.5	79.5
0°-90°	3861.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3861.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1806	1806	1806	1806	1806	
5°	1804	1783	1801	1805	1799	168
15°	1508	1513	1475	1483	1467	421
25°	1219	1235	1243	1213	1217	562
35°	1033	1035	1033	1034	1033	647
45°	848	854	847	882	873	656
55°	666	665	663	686	693	595
65°	478	468	463	484	505	474
75°	266	246	240	254	279	278
85°	46	41	41	38	40	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1805.7	1805.7	1805.7	1805.7	1805.7
2.5°	1816.9	1802.8	1790.6	1810.3	1808.5
5°	1803.8	1783.1	1801.0	1804.7	1799.1
7.5°	1769.0	1755.9	1756.8	1749.3	1748.4
10°	1678.0	1685.5	1670.4	1683.6	1677.0
12.5°	1600.0	1604.7	1578.4	1584.1	1576.5
15°	1508.0	1512.7	1475.1	1482.6	1466.7
17.5°	1407.5	1424.4	1393.4	1402.8	1385.9
20°	1332.4	1346.5	1347.4	1332.4	1278.9
22.5°	1273.3	1287.3	1298.6	1253.5	1247.9
25°	1218.8	1234.8	1243.2	1213.2	1216.9
27.5°	1164.3	1182.2	1182.2	1188.7	1180.3
30°	1124.9	1132.4	1120.2	1144.6	1137.1
32.5°	1077.9	1080.8	1070.4	1088.3	1062.0
35°	1032.9	1034.8	1032.9	1033.8	1032.9
37.5°	989.7	985.0	993.4	987.8	1005.6
40°	941.8	941.8	945.5	954.9	969.0
42.5°	897.7	901.4	896.7	923.0	928.6
45°	847.9	854.5	847.0	881.7	873.2
47.5°	802.8	805.6	803.8	827.2	829.1
50°	754.0	757.8	759.6	780.3	783.1
52.5°	713.6	712.7	706.1	736.2	740.9
55°	665.7	664.8	662.9	686.4	693.0
57.5°	616.9	617.8	622.5	635.7	651.6
60°	572.8	568.1	571.8	587.8	600.9
62.5°	527.7	519.3	510.8	537.1	549.3
65°	477.9	467.6	462.9	484.5	505.2
67.5°	431.9	415.0	412.2	427.2	451.6
70°	379.3	358.7	357.8	369.0	398.1
72.5°	321.1	303.3	298.6	313.6	339.9
75°	265.7	246.0	240.4	254.5	278.9
77.5°	205.6	189.7	185.9	193.4	213.1
80°	144.6	135.2	131.5	134.3	148.4
82.5°	91.1	84.5	82.6	81.7	89.2
85°	46.0	41.3	41.3	38.5	40.4
87.5°	14.1	13.1	12.2	9.4	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)