

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: P485743

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4HI-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: P485743
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-LD4-4HI-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

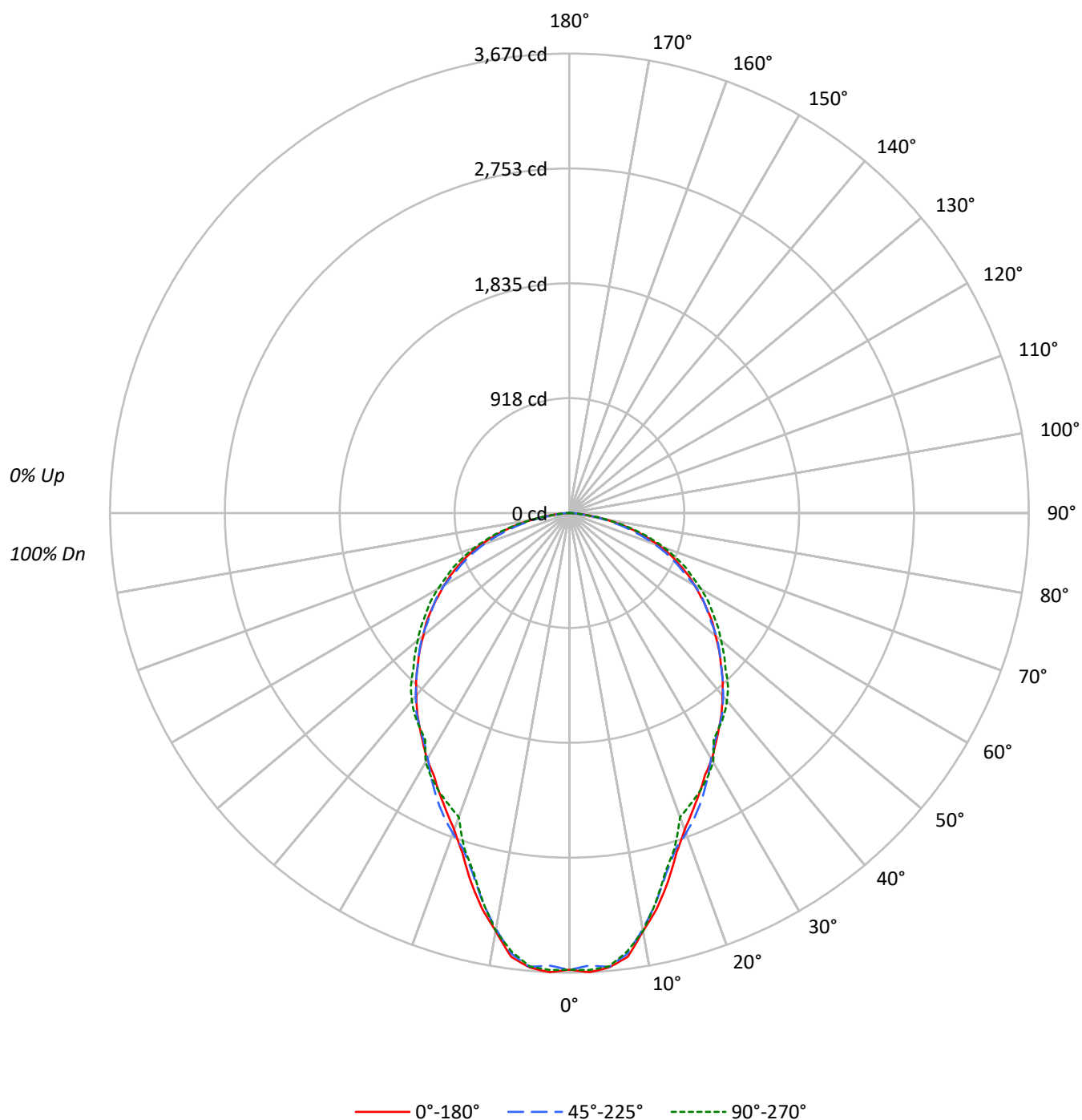
Lumens per Lamp: N/A
Luminaire Lumens: 7800.4 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 88
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°	9815	9815	9815
5°	9842	9827	9817
10°	9262	9220	9257
15°	8486	8301	8254
20°	7708	7794	7398
25°	7310	7456	7299
30°	7061	7031	7137
35°	6854	6854	6854
40°	6683	6709	6876
45°	6518	6511	6713
50°	6376	6424	6622
55°	6309	6282	6567
60°	6227	6217	6533
65°	6147	5954	6497
70°	6029	5686	6327
75°	5581	5049	5857
80°	4527	4114	4644
85°	2868	2578	2519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.8	4.3
10°-20°	846.9	10.9
20°-30°	1143.8	14.7
30°-40°	1309.8	16.8
40°-50°	1341.6	17.2
50°-60°	1217.4	15.6
60°-70°	950.1	12.2
70°-80°	538.9	6.9
80°-90°	113.1	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°	2329.5	29.9
0°-40°	3639.3	46.7
0°-60°	6198.3	79.5
0°-90°	7800.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7800.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3647	3647	3647	3647	3647	
5°	3644	3602	3638	3646	3634	340
15°	3046	3056	2980	2995	2963	851
25°	2462	2494	2511	2451	2458	1136
35°	2086	2090	2086	2088	2086	1307
45°	1713	1726	1711	1781	1764	1324
55°	1345	1343	1339	1386	1400	1202
65°	965	945	935	979	1020	957
75°	537	497	486	514	563	562
85°	93	84	84	78	82	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3647.4	3647.4	3647.4	3647.4	3647.4
2.5°	3670.2	3641.7	3617.1	3656.9	3653.1
5°	3643.6	3601.9	3637.9	3645.5	3634.1
7.5°	3573.4	3546.9	3548.8	3533.6	3531.7
10°	3389.4	3404.6	3374.3	3400.8	3387.6
12.5°	3232.0	3241.5	3188.4	3199.8	3184.6
15°	3046.1	3055.6	2979.8	2994.9	2962.7
17.5°	2843.2	2877.3	2814.7	2833.7	2799.6
20°	2691.5	2719.9	2721.8	2691.5	2583.3
22.5°	2572.0	2600.4	2623.2	2532.1	2520.7
25°	2461.9	2494.2	2511.3	2450.6	2458.2
27.5°	2351.9	2388.0	2388.0	2401.3	2384.2
30°	2272.3	2287.5	2262.8	2312.1	2296.9
32.5°	2177.4	2183.1	2162.3	2198.3	2145.2
35°	2086.4	2090.2	2086.4	2088.3	2086.4
37.5°	1999.1	1989.7	2006.7	1995.4	2031.4
40°	1902.4	1902.4	1910.0	1929.0	1957.4
42.5°	1813.3	1820.9	1811.4	1864.5	1875.9
45°	1712.7	1726.0	1710.8	1781.0	1764.0
47.5°	1621.7	1627.4	1623.6	1671.0	1674.8
50°	1523.1	1530.7	1534.5	1576.2	1581.9
52.5°	1441.5	1439.6	1426.3	1487.0	1496.5
55°	1344.8	1342.9	1339.1	1386.5	1399.8
57.5°	1246.1	1248.0	1257.5	1284.1	1316.3
60°	1157.0	1147.5	1155.1	1187.4	1213.9
62.5°	1066.0	1048.9	1031.8	1084.9	1109.6
65°	965.4	944.6	935.1	978.7	1020.4
67.5°	872.5	838.4	832.7	863.0	912.3
70°	766.3	724.5	722.7	745.4	804.2
72.5°	648.7	612.6	603.2	633.5	686.6
75°	536.8	496.9	485.6	514.0	563.3
77.5°	415.4	383.1	375.6	390.7	430.6
80°	292.1	273.1	265.5	271.2	299.7
82.5°	184.0	170.7	166.9	165.0	180.2
85°	92.9	83.5	83.5	77.8	81.6
87.5°	28.5	26.6	24.7	19.0	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)