

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: P485834

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-30-120-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: P485834
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-LD4-6STD-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

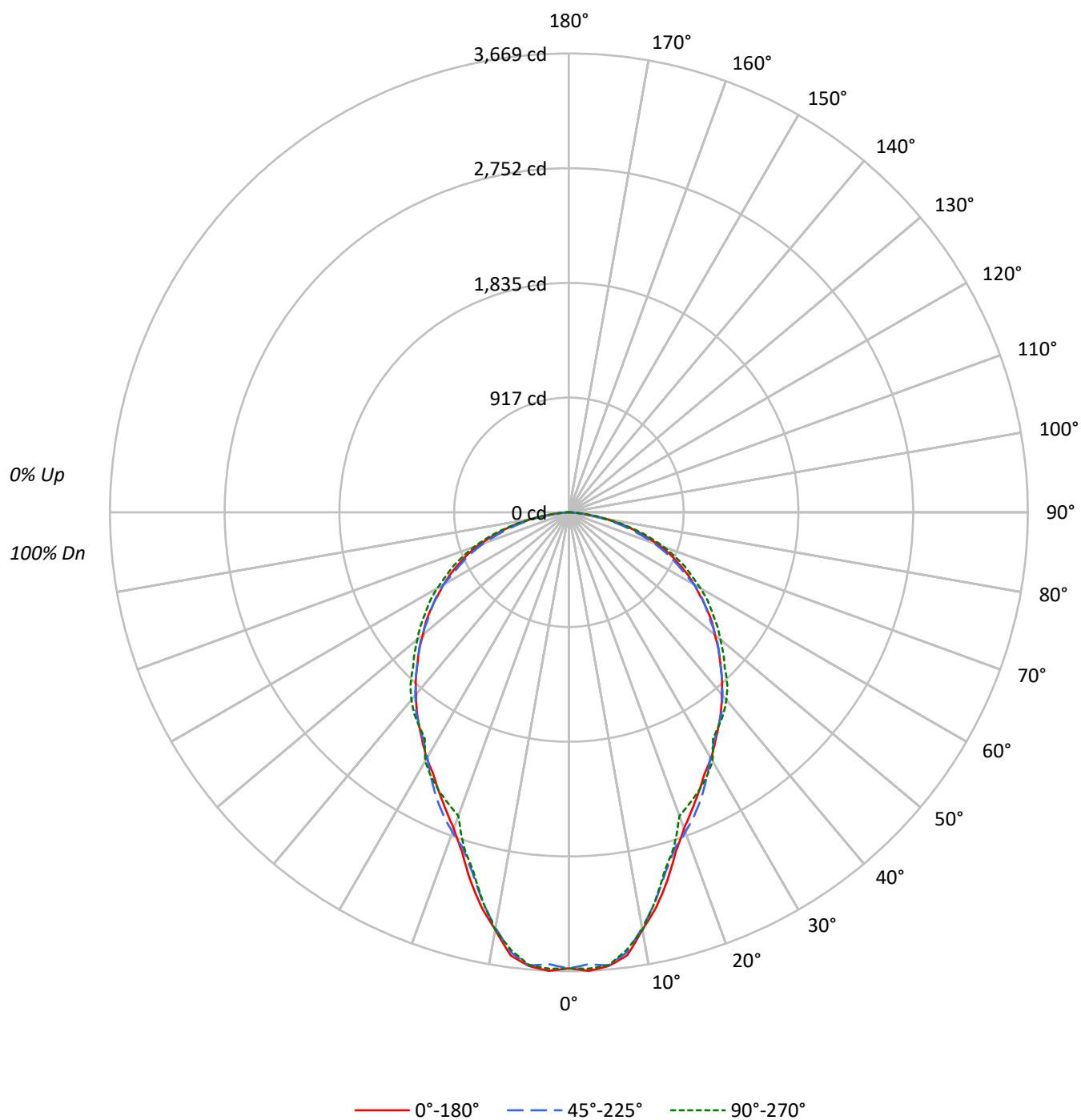
Lumens per Lamp: N/A
Luminaire Lumens: 7798.8 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	9813	9813	9813
5°	9840	9825	9815
10°	9260	9218	9255
15°	8484	8299	8252
20°	7706	7793	7396
25°	7308	7455	7297
30°	7059	7030	7136
35°	6853	6853	6853
40°	6681	6708	6875
45°	6517	6510	6712
50°	6375	6422	6621
55°	6308	6281	6566
60°	6226	6216	6532
65°	6146	5953	6496
70°	6028	5685	6326
75°	5580	5048	5856
80°	4525	4114	4643
85°	2868	2575	2516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.7	4.3
10°-20°	846.8	10.9
20°-30°	1143.5	14.7
30°-40°	1309.5	16.8
40°-50°	1341.4	17.2
50°-60°	1217.1	15.6
60°-70°	949.9	12.2
70°-80°	538.8	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°	2329.0	29.9
0°-40°	3638.5	46.7
0°-60°	6197.0	79.5
0°-90°	7798.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7798.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3647	3647	3647	3647	3647	
5°	3643	3601	3637	3645	3633	340
15°	3046	3055	2979	2994	2962	851
25°	2461	2494	2511	2450	2458	1136
35°	2086	2090	2086	2088	2086	1307
45°	1712	1726	1710	1781	1764	1324
55°	1344	1343	1339	1386	1400	1202
65°	965	944	935	978	1020	957
75°	537	497	486	514	563	561
85°	93	83	83	78	82	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3646.7	3646.7	3646.7	3646.7	3646.7
2.5°	3669.4	3641.0	3616.3	3656.1	3652.3
5°	3642.9	3601.1	3637.2	3644.8	3633.4
7.5°	3572.7	3546.1	3548.0	3532.9	3531.0
10°	3388.8	3403.9	3373.6	3400.1	3386.9
12.5°	3231.4	3240.8	3187.7	3199.1	3183.9
15°	3045.5	3055.0	2979.1	2994.3	2962.1
17.5°	2842.6	2876.7	2814.2	2833.1	2799.0
20°	2690.9	2719.3	2721.2	2690.9	2582.8
22.5°	2571.4	2599.9	2622.6	2531.6	2520.2
25°	2461.4	2493.7	2510.7	2450.1	2457.7
27.5°	2351.5	2387.5	2387.5	2400.8	2383.7
30°	2271.8	2287.0	2262.3	2311.6	2296.5
32.5°	2177.0	2182.7	2161.8	2197.9	2144.8
35°	2086.0	2089.8	2086.0	2087.9	2086.0
37.5°	1998.7	1989.3	2006.3	1994.9	2031.0
40°	1902.0	1902.0	1909.6	1928.6	1957.0
42.5°	1812.9	1820.5	1811.0	1864.1	1875.5
45°	1712.4	1725.7	1710.5	1780.7	1763.6
47.5°	1621.4	1627.1	1623.3	1670.7	1674.5
50°	1522.8	1530.3	1534.1	1575.9	1581.5
52.5°	1441.2	1439.3	1426.0	1486.7	1496.2
55°	1344.5	1342.6	1338.8	1386.2	1399.5
57.5°	1245.9	1247.8	1257.3	1283.8	1316.1
60°	1156.8	1147.3	1154.9	1187.1	1213.7
62.5°	1065.7	1048.7	1031.6	1084.7	1109.4
65°	965.2	944.4	934.9	978.5	1020.2
67.5°	872.3	838.2	832.5	862.8	912.1
70°	766.1	724.4	722.5	745.3	804.0
72.5°	648.5	612.5	603.0	633.4	686.5
75°	536.7	496.8	485.5	513.9	563.2
77.5°	415.3	383.1	375.5	390.6	430.5
80°	292.0	273.1	265.5	271.2	299.6
82.5°	183.9	170.7	166.9	165.0	180.2
85°	92.9	83.4	83.4	77.7	81.5
87.5°	28.4	26.5	24.7	19.0	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)