

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: P485836

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-35-120-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: P485836
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-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

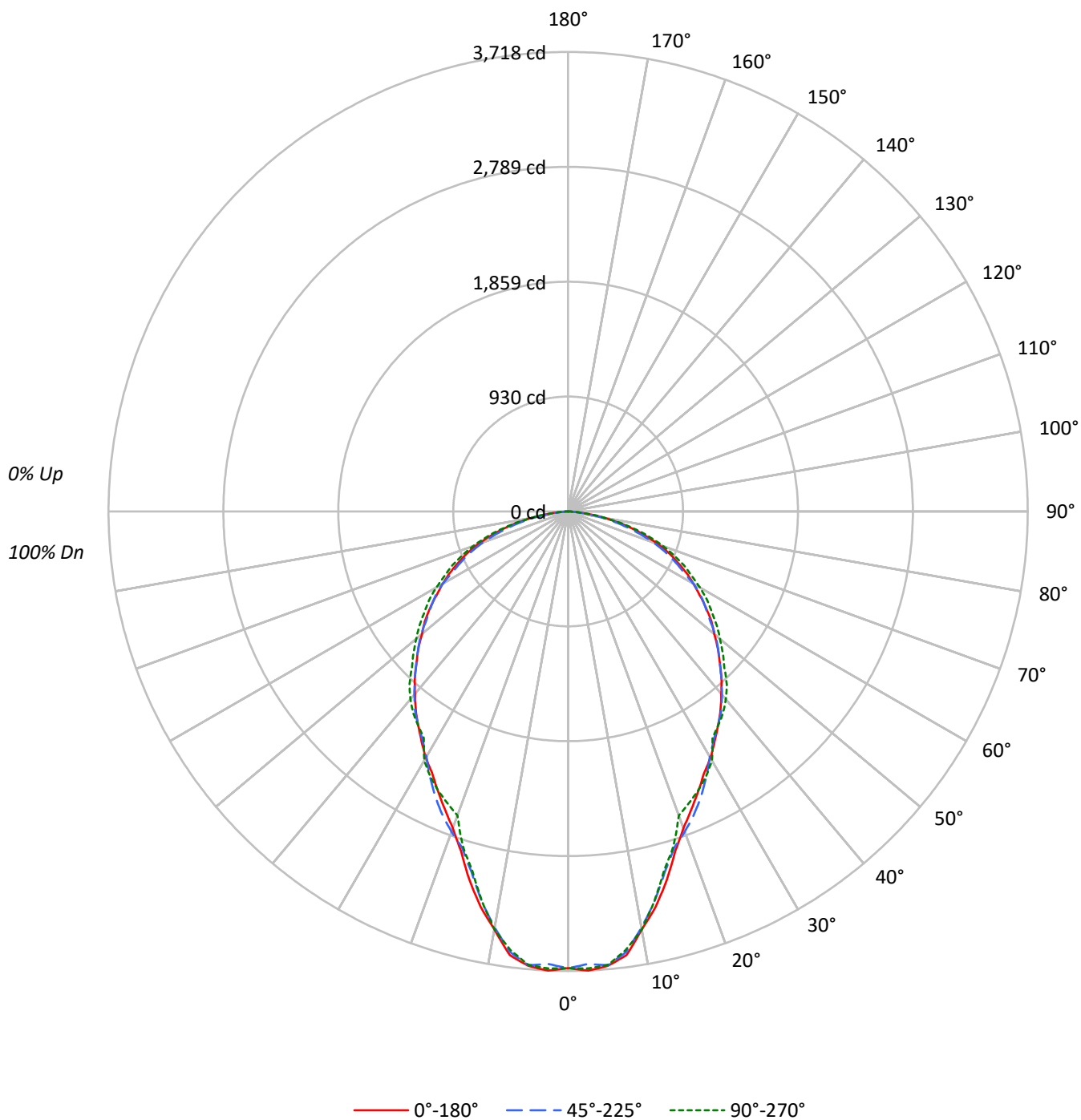
Lumens per Lamp: N/A
Luminaire Lumens: 7903.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	9944	9944	9944
5°	9972	9956	9946
10°	9383	9342	9378
15°	8598	8410	8362
20°	7809	7897	7495
25°	7406	7554	7395
30°	7154	7124	7231
35°	6944	6944	6944
40°	6771	6798	6967
45°	6604	6596	6801
50°	6460	6508	6710
55°	6392	6365	6654
60°	6309	6299	6619
65°	6228	6032	6583
70°	6109	5761	6411
75°	5654	5114	5934
80°	4585	4169	4705
85°	2908	2612	2550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.2	4.3
10°-20°	858.1	10.9
20°-30°	1158.8	14.7
30°-40°	1327.0	16.8
40°-50°	1359.3	17.2
50°-60°	1233.4	15.6
60°-70°	962.6	12.2
70°-80°	546.0	6.9
80°-90°	114.6	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°	2360.1	29.9
0°-40°	3687.1	46.7
0°-60°	6279.8	79.5
0°-90°	7903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3695	3695	3695	3695	3695	
5°	3692	3649	3686	3694	3682	345
15°	3086	3096	3019	3034	3002	863
25°	2494	2527	2544	2483	2490	1151
35°	2114	2118	2114	2116	2114	1324
45°	1735	1749	1733	1804	1787	1342
55°	1362	1360	1357	1405	1418	1218
65°	978	957	947	992	1034	969
75°	544	504	492	521	571	569
85°	94	85	85	79	83	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3695.4	3695.4	3695.4	3695.4	3695.4
2.5°	3718.4	3689.6	3664.6	3705.0	3701.1
5°	3691.5	3649.3	3685.8	3693.5	3681.9
7.5°	3620.4	3593.5	3595.5	3580.1	3578.2
10°	3434.0	3449.4	3418.7	3445.6	3432.1
12.5°	3274.5	3284.1	3230.3	3241.9	3226.5
15°	3086.2	3095.8	3018.9	3034.3	3001.7
17.5°	2880.6	2915.2	2851.8	2871.0	2836.4
20°	2726.9	2755.7	2757.6	2726.9	2617.3
22.5°	2605.8	2634.6	2657.7	2565.4	2553.9
25°	2494.3	2527.0	2544.3	2482.8	2490.5
27.5°	2382.9	2419.4	2419.4	2432.8	2415.5
30°	2302.2	2317.5	2292.6	2342.5	2327.1
32.5°	2206.1	2211.8	2190.7	2227.2	2173.4
35°	2113.8	2117.7	2113.8	2115.8	2113.8
37.5°	2025.4	2015.8	2033.1	2021.6	2058.1
40°	1927.4	1927.4	1935.1	1954.3	1983.2
42.5°	1837.1	1844.8	1835.2	1889.0	1900.5
45°	1735.3	1748.7	1733.3	1804.5	1787.2
47.5°	1643.0	1648.8	1645.0	1693.0	1696.8
50°	1543.1	1550.8	1554.6	1596.9	1602.7
52.5°	1460.5	1458.6	1445.1	1506.6	1516.2
55°	1362.5	1360.5	1356.7	1404.7	1418.2
57.5°	1262.5	1264.5	1274.1	1301.0	1333.6
60°	1172.2	1162.6	1170.3	1203.0	1229.9
62.5°	1080.0	1062.7	1045.4	1099.2	1124.2
65°	978.1	957.0	947.4	991.6	1033.9
67.5°	884.0	849.4	843.6	874.4	924.3
70°	776.4	734.1	732.2	755.2	814.8
72.5°	657.2	620.7	611.1	641.8	695.6
75°	543.8	503.5	491.9	520.8	570.7
77.5°	420.8	388.2	380.5	395.9	436.2
80°	295.9	276.7	269.0	274.8	303.6
82.5°	186.4	173.0	169.1	167.2	182.6
85°	94.2	84.6	84.6	78.8	82.6
87.5°	28.8	26.9	25.0	19.2	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)