

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: P485696

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2STD-50-120-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: P485696
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-LD4-2STD-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

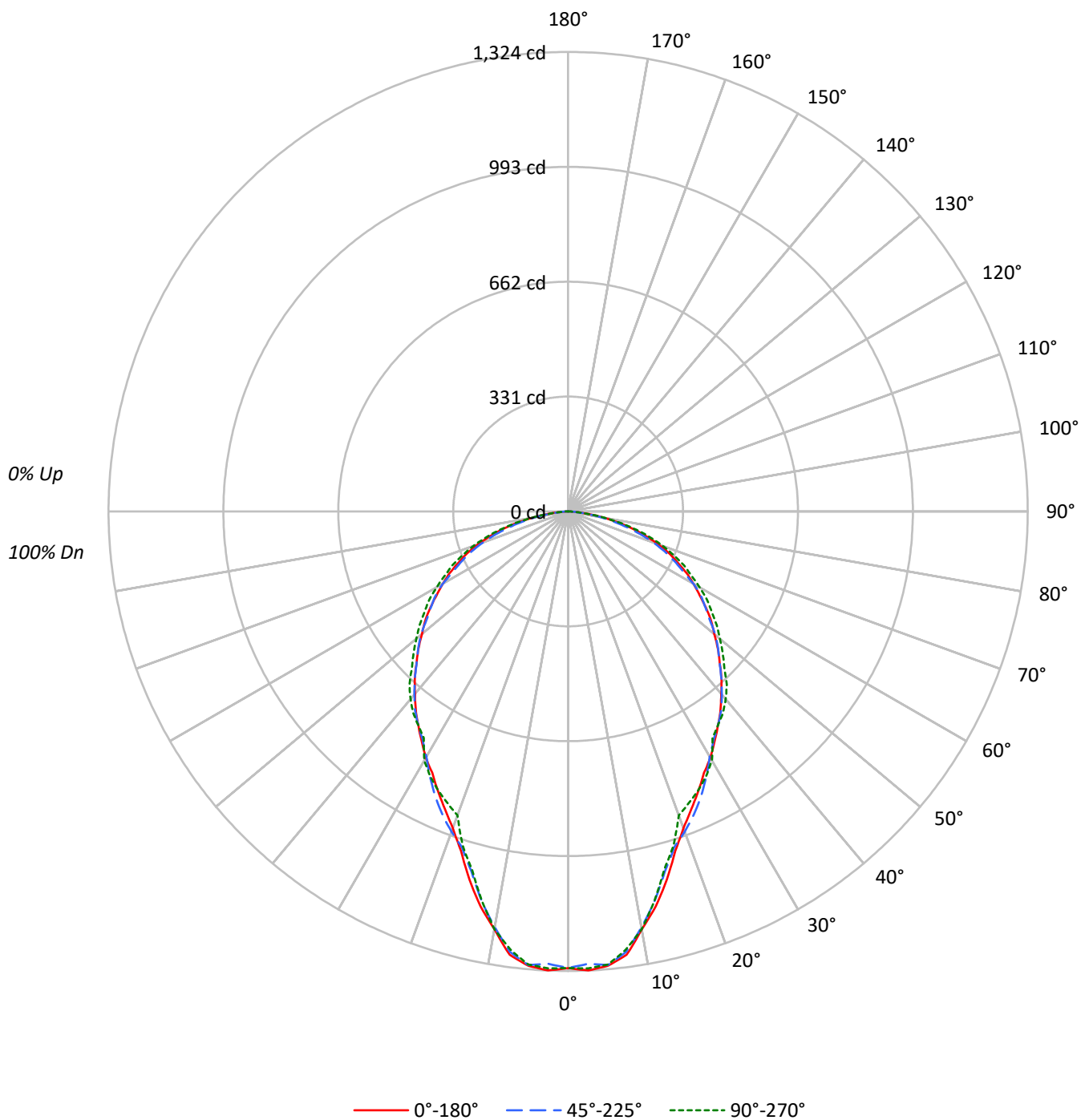
Lumens per Lamp: N/A
Luminaire Lumens: 2813.3 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3540	3540	3540
5°	3550	3544	3541
10°	3340	3325	3339
15°	3061	2994	2977
20°	2780	2811	2668
25°	2636	2689	2632
30°	2546	2536	2574
35°	2472	2472	2472
40°	2410	2420	2480
45°	2351	2348	2421
50°	2300	2317	2388
55°	2275	2266	2368
60°	2246	2242	2356
65°	2217	2147	2343
70°	2175	2050	2282
75°	2013	1821	2113
80°	1632	1485	1675
85°	1034	929	908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.2	4.3
10°-20°	305.5	10.9
20°-30°	412.5	14.7
30°-40°	472.4	16.8
40°-50°	483.9	17.2
50°-60°	439.0	15.6
60°-70°	342.7	12.2
70°-80°	194.4	6.9
80°-90°	40.8	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°	840.2	29.9
0°-40°	1312.5	46.7
0°-60°	2235.5	79.5
0°-90°	2813.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2813.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1316	1316	1316	1316	1316	
5°	1314	1299	1312	1315	1311	123
15°	1099	1102	1075	1080	1068	307
25°	888	900	906	884	887	410
35°	752	754	752	753	752	471
45°	618	622	617	642	636	478
55°	485	484	483	500	505	433
65°	348	341	337	353	368	345
75°	194	179	175	185	203	203
85°	34	30	30	28	29	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315.5	1315.5	1315.5	1315.5	1315.5
2.5°	1323.7	1313.4	1304.5	1318.9	1317.5
5°	1314.1	1299.1	1312.1	1314.8	1310.7
7.5°	1288.8	1279.2	1279.9	1274.4	1273.7
10°	1222.4	1227.9	1217.0	1226.5	1221.8
12.5°	1165.7	1169.1	1149.9	1154.0	1148.6
15°	1098.6	1102.0	1074.7	1080.2	1068.5
17.5°	1025.4	1037.7	1015.2	1022.0	1009.7
20°	970.7	981.0	981.6	970.7	931.7
22.5°	927.6	937.9	946.1	913.2	909.1
25°	887.9	899.6	905.7	883.8	886.6
27.5°	848.3	861.3	861.3	866.0	859.9
30°	819.5	825.0	816.1	833.9	828.4
32.5°	785.3	787.4	779.8	792.8	773.7
35°	752.5	753.9	752.5	753.2	752.5
37.5°	721.0	717.6	723.8	719.6	732.6
40°	686.1	686.1	688.9	695.7	706.0
42.5°	654.0	656.7	653.3	672.4	676.6
45°	617.7	622.5	617.0	642.3	636.2
47.5°	584.9	586.9	585.6	602.7	604.0
50°	549.3	552.0	553.4	568.5	570.5
52.5°	519.9	519.2	514.4	536.3	539.7
55°	485.0	484.3	483.0	500.1	504.8
57.5°	449.4	450.1	453.5	463.1	474.7
60°	417.3	413.9	416.6	428.2	437.8
62.5°	384.5	378.3	372.1	391.3	400.2
65°	348.2	340.7	337.2	353.0	368.0
67.5°	314.7	302.4	300.3	311.3	329.0
70°	276.4	261.3	260.6	268.8	290.0
72.5°	234.0	221.0	217.5	228.5	247.6
75°	193.6	179.2	175.1	185.4	203.2
77.5°	149.8	138.2	135.4	140.9	155.3
80°	105.3	98.5	95.8	97.8	108.1
82.5°	66.4	61.6	60.2	59.5	65.0
85°	33.5	30.1	30.1	28.0	29.4
87.5°	10.3	9.6	8.9	6.8	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)