

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: P486963

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2HI-30-120-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: P486963
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-24-4-INS-89BC-LD4-2HI-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

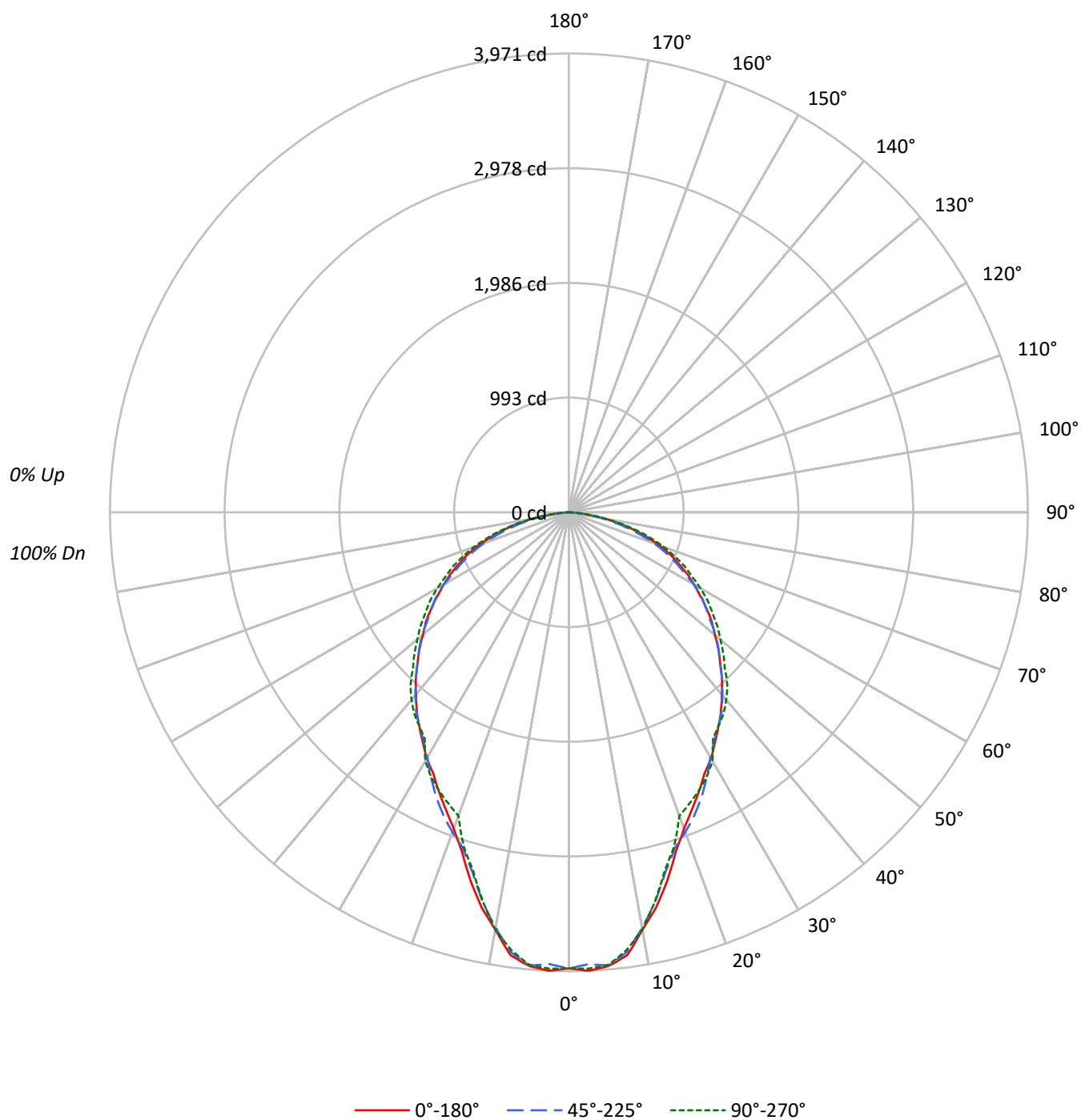
Lumens per Lamp: N/A
Luminaire Lumens: 8439.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	5309	5309	5309
5°	5324	5316	5310
10°	5010	4987	5007
15°	4590	4490	4465
20°	4169	4216	4002
25°	3954	4033	3948
30°	3819	3803	3861
35°	3708	3708	3708
40°	3615	3629	3720
45°	3526	3522	3631
50°	3449	3475	3582
55°	3413	3398	3552
60°	3368	3363	3534
65°	3325	3221	3515
70°	3261	3076	3423
75°	3019	2731	3168
80°	2448	2226	2512
85°	1551	1394	1362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.5	4.3
10°-20°	916.3	10.9
20°-30°	1237.4	14.7
30°-40°	1417.0	16.8
40°-50°	1451.5	17.2
50°-60°	1317.0	15.6
60°-70°	1027.9	12.2
70°-80°	583.0	6.9
80°-90°	122.4	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°	2520.2	29.9
0°-40°	3937.2	46.7
0°-60°	6705.7	79.5
0°-90°	8439.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8439.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3946	3946	3946	3946	3946	
5°	3942	3897	3936	3944	3932	368
15°	3296	3306	3224	3240	3205	921
25°	2664	2698	2717	2651	2659	1229
35°	2257	2261	2257	2259	2257	1414
45°	1853	1867	1851	1927	1908	1433
55°	1455	1453	1449	1500	1514	1300
65°	1044	1022	1012	1059	1104	1035
75°	581	538	525	556	609	607
85°	100	90	90	84	88	133
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3946.0	3946.0	3946.0	3946.0	3946.0
2.5°	3970.6	3939.9	3913.2	3956.3	3952.2
5°	3941.9	3896.8	3935.7	3944.0	3931.6
7.5°	3866.0	3837.3	3839.3	3822.9	3820.8
10°	3666.9	3683.4	3650.5	3679.2	3664.9
12.5°	3496.6	3506.9	3449.4	3461.7	3445.3
15°	3295.5	3305.8	3223.7	3240.1	3205.2
17.5°	3076.0	3112.9	3045.2	3065.7	3028.8
20°	2911.8	2942.6	2944.6	2911.8	2794.8
22.5°	2782.5	2813.3	2837.9	2739.4	2727.1
25°	2663.5	2698.4	2716.9	2651.2	2659.4
27.5°	2544.5	2583.5	2583.5	2597.8	2579.4
30°	2458.3	2474.7	2448.0	2501.4	2485.0
32.5°	2355.7	2361.9	2339.3	2378.3	2320.8
35°	2257.2	2261.3	2257.2	2259.3	2257.2
37.5°	2162.8	2152.6	2171.0	2158.7	2197.7
40°	2058.2	2058.2	2066.4	2086.9	2117.7
42.5°	1961.7	1969.9	1959.7	2017.1	2029.4
45°	1853.0	1867.3	1850.9	1926.8	1908.4
47.5°	1754.5	1760.6	1756.5	1807.8	1811.9
50°	1647.8	1656.0	1660.1	1705.2	1711.4
52.5°	1559.5	1557.5	1543.1	1608.8	1619.0
55°	1454.9	1452.8	1448.7	1500.0	1514.4
57.5°	1348.2	1350.2	1360.5	1389.2	1424.1
60°	1251.7	1241.5	1249.7	1284.6	1313.3
62.5°	1153.2	1134.8	1116.3	1173.7	1200.4
65°	1044.5	1021.9	1011.6	1058.8	1104.0
67.5°	943.9	907.0	900.8	933.7	987.0
70°	829.0	783.9	781.8	806.4	870.1
72.5°	701.8	662.8	652.5	685.4	742.8
75°	580.7	537.6	525.3	556.1	609.4
77.5°	449.4	414.5	406.3	422.7	465.8
80°	316.0	295.5	287.3	293.4	324.2
82.5°	199.0	184.7	180.6	178.5	194.9
85°	100.5	90.3	90.3	84.1	88.2
87.5°	30.8	28.7	26.7	20.5	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)