

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: P487094

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5STD-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: P487094
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-LD4-5STD-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

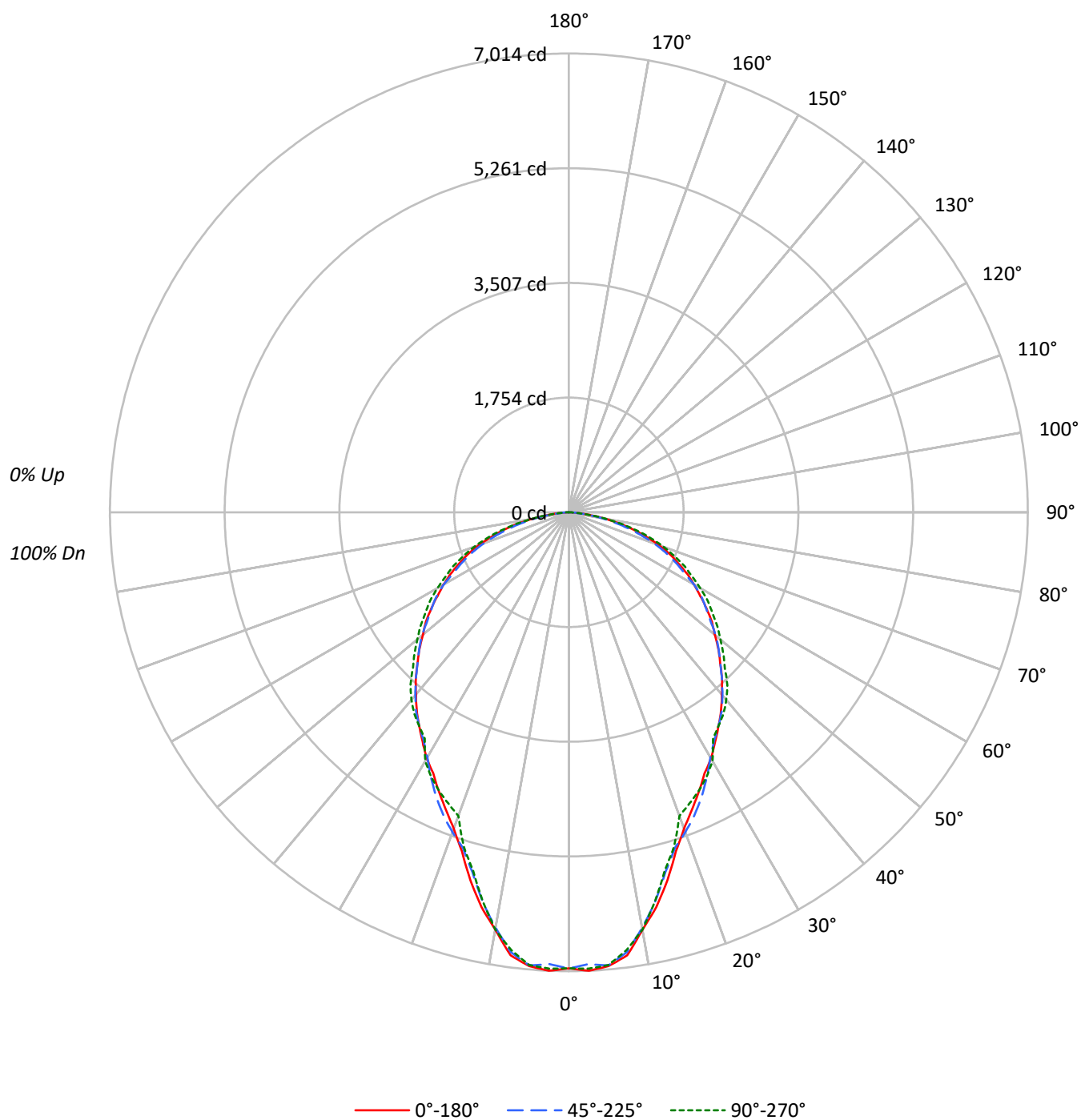
Lumens per Lamp: N/A
Luminaire Lumens: 14906.8 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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°	9378	9378	9378
5°	9404	9390	9380
10°	8850	8810	8845
15°	8109	7932	7887
20°	7365	7448	7069
25°	6985	7125	6974
30°	6747	6718	6820
35°	6549	6549	6549
40°	6386	6411	6570
45°	6228	6221	6414
50°	6092	6138	6328
55°	6028	6003	6275
60°	5950	5940	6243
65°	5874	5689	6209
70°	5761	5433	6046
75°	5333	4824	5596
80°	4325	3932	4437
85°	2742	2462	2407



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	647.4	4.3
10°-20°	1618.5	10.9
20°-30°	2185.8	14.7
30°-40°	2503.1	16.8
40°-50°	2563.9	17.2
50°-60°	2326.4	15.6
60°-70°	1815.7	12.2
70°-80°	1029.8	6.9
80°-90°	216.2	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°	4451.7	29.9
0°-40°	6954.8	46.7
0°-60°	11845.1	79.5
0°-90°	14906.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14906.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6970	6970	6970	6970	6970	
5°	6963	6883	6952	6967	6945	650
15°	5821	5839	5694	5723	5662	1627
25°	4705	4766	4799	4683	4698	2171
35°	3987	3994	3987	3991	3987	2498
45°	3273	3298	3270	3404	3371	2531
55°	2570	2566	2559	2650	2675	2297
65°	1845	1805	1787	1870	1950	1828
75°	1026	950	928	982	1076	1073
85°	178	160	160	149	156	235
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6970.3	6970.3	6970.3	6970.3	6970.3
2.5°	7013.8	6959.4	6912.3	6988.4	6981.2
5°	6963.0	6883.3	6952.2	6966.7	6944.9
7.5°	6828.9	6778.2	6781.8	6752.8	6749.2
10°	6477.3	6506.3	6448.3	6499.1	6473.7
12.5°	6176.5	6194.6	6093.1	6114.9	6085.9
15°	5821.3	5839.4	5694.4	5723.4	5661.8
17.5°	5433.4	5498.7	5379.1	5415.3	5350.1
20°	5143.4	5197.8	5201.4	5143.4	4936.8
22.5°	4915.1	4969.5	5013.0	4839.0	4817.2
25°	4704.9	4766.5	4799.1	4683.1	4697.6
27.5°	4494.6	4563.5	4563.5	4588.9	4556.2
30°	4342.4	4371.4	4324.3	4418.5	4389.5
32.5°	4161.2	4172.0	4132.2	4201.0	4099.5
35°	3987.2	3994.4	3987.2	3990.8	3987.2
37.5°	3820.4	3802.3	3834.9	3813.2	3882.1
40°	3635.6	3635.6	3650.1	3686.3	3740.7
42.5°	3465.2	3479.7	3461.6	3563.1	3584.8
45°	3273.1	3298.5	3269.5	3403.6	3371.0
47.5°	3099.1	3110.0	3102.7	3193.4	3200.6
50°	2910.6	2925.1	2932.4	3012.1	3023.0
52.5°	2754.8	2751.1	2725.8	2841.8	2859.9
55°	2569.9	2566.3	2559.0	2649.7	2675.0
57.5°	2381.4	2385.1	2403.2	2453.9	2515.5
60°	2211.1	2192.9	2207.4	2269.1	2319.8
62.5°	2037.1	2004.5	1971.8	2073.3	2120.4
65°	1845.0	1805.1	1787.0	1870.3	1950.1
67.5°	1667.4	1602.1	1591.2	1649.2	1743.5
70°	1464.4	1384.6	1381.0	1424.5	1536.9
72.5°	1239.6	1170.8	1152.7	1210.6	1312.1
75°	1025.8	949.7	927.9	982.3	1076.5
77.5°	793.8	732.2	717.7	746.7	822.8
80°	558.2	522.0	507.5	518.3	572.7
82.5°	351.6	326.2	319.0	315.3	344.3
85°	177.6	159.5	159.5	148.6	155.9
87.5°	54.4	50.7	47.1	36.2	39.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)