

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: P487015

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3LO-40-120-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: P487015
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-LD4-3LO-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

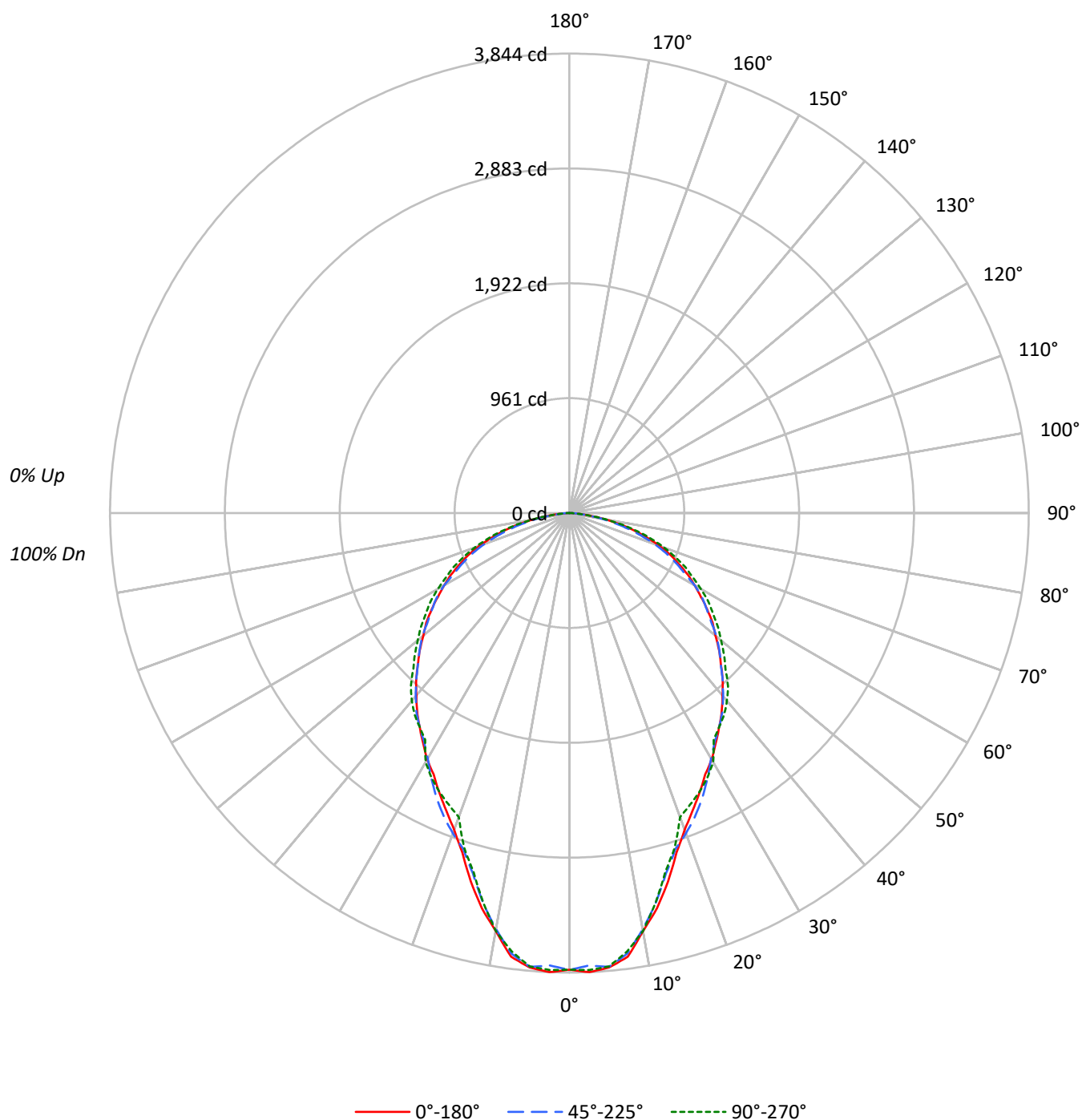
Lumens per Lamp: N/A
Luminaire Lumens: 8169.4 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	5140	5140	5140
5°	5154	5146	5140
10°	4850	4828	4847
15°	4444	4347	4322
20°	4036	4082	3874
25°	3828	3905	3822
30°	3697	3682	3737
35°	3589	3589	3589
40°	3499	3514	3601
45°	3413	3409	3515
50°	3339	3364	3468
55°	3304	3290	3439
60°	3261	3255	3421
65°	3219	3118	3402
70°	3157	2977	3314
75°	2923	2643	3067
80°	2370	2155	2432
85°	1502	1349	1318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.8	4.3
10°-20°	887.0	10.9
20°-30°	1197.9	14.7
30°-40°	1371.8	16.8
40°-50°	1405.1	17.2
50°-60°	1274.9	15.6
60°-70°	995.1	12.2
70°-80°	564.4	6.9
80°-90°	118.5	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°	2439.7	29.9
0°-40°	3811.4	46.7
0°-60°	6491.5	79.5
0°-90°	8169.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8169.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3820	3820	3820	3820	3820	
5°	3816	3772	3810	3818	3806	356
15°	3190	3200	3121	3137	3103	892
25°	2578	2612	2630	2566	2574	1190
35°	2185	2189	2185	2187	2185	1369
45°	1794	1808	1792	1865	1847	1387
55°	1408	1406	1402	1452	1466	1259
65°	1011	989	979	1025	1069	1002
75°	562	520	508	538	590	588
85°	97	87	87	81	85	129
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3819.9	3819.9	3819.9	3819.9	3819.9
2.5°	3843.8	3814.0	3788.2	3829.9	3825.9
5°	3816.0	3772.3	3810.0	3818.0	3806.0
7.5°	3742.5	3714.7	3716.6	3700.8	3698.8
10°	3549.8	3565.7	3533.9	3561.7	3547.8
12.5°	3384.9	3394.8	3339.2	3351.1	3335.3
15°	3190.2	3200.2	3120.7	3136.6	3102.8
17.5°	2977.7	3013.4	2947.9	2967.8	2932.0
20°	2818.8	2848.6	2850.6	2818.8	2705.5
22.5°	2693.6	2723.4	2747.3	2651.9	2640.0
25°	2578.4	2612.2	2630.1	2566.5	2574.4
27.5°	2463.2	2500.9	2500.9	2514.8	2497.0
30°	2379.8	2395.7	2369.8	2421.5	2405.6
32.5°	2280.4	2286.4	2264.6	2302.3	2246.7
35°	2185.1	2189.1	2185.1	2187.1	2185.1
37.5°	2093.7	2083.8	2101.7	2089.7	2127.5
40°	1992.4	1992.4	2000.4	2020.2	2050.0
42.5°	1899.0	1907.0	1897.1	1952.7	1964.6
45°	1793.8	1807.7	1791.8	1865.3	1847.4
47.5°	1698.4	1704.4	1700.4	1750.1	1754.0
50°	1595.1	1603.1	1607.0	1650.7	1656.7
52.5°	1509.7	1507.7	1493.8	1557.4	1567.3
55°	1408.4	1406.4	1402.4	1452.1	1466.0
57.5°	1305.1	1307.1	1317.0	1344.8	1378.6
60°	1211.7	1201.8	1209.7	1243.5	1271.3
62.5°	1116.4	1098.5	1080.6	1136.2	1162.1
65°	1011.1	989.3	979.3	1025.0	1068.7
67.5°	913.8	878.0	872.1	903.8	955.5
70°	802.5	758.8	756.8	780.7	842.3
72.5°	679.4	641.6	631.7	663.5	719.1
75°	562.2	520.5	508.5	538.3	590.0
77.5°	435.0	401.3	393.3	409.2	450.9
80°	305.9	286.0	278.1	284.1	313.9
82.5°	192.7	178.8	174.8	172.8	188.7
85°	97.3	87.4	87.4	81.4	85.4
87.5°	29.8	27.8	25.8	19.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)