

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: P485799

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-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: P485799
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-LD4-5STD-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

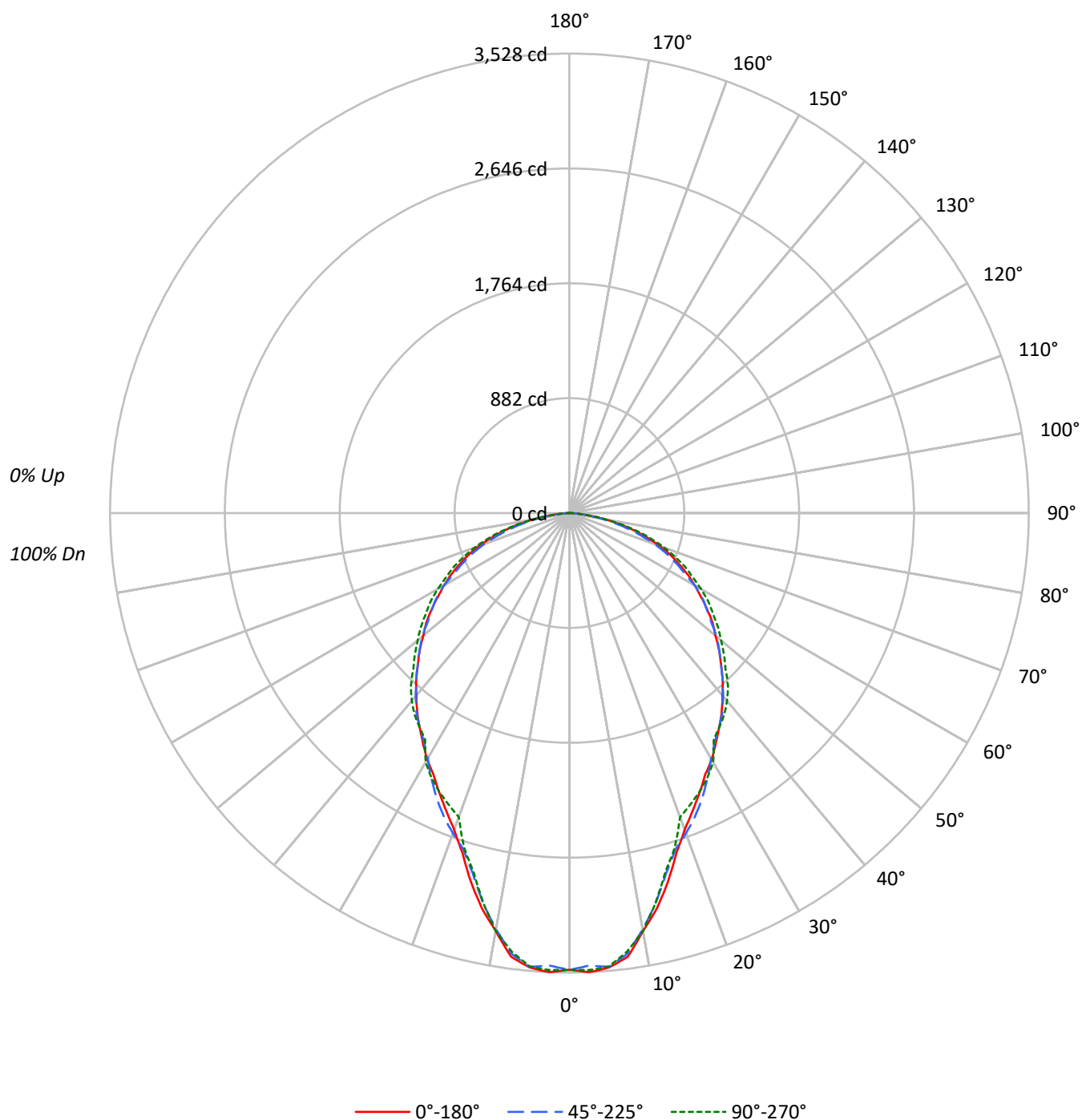
Lumens per Lamp: N/A
Luminaire Lumens: 7498.9 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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°	9436	9436	9436
5°	9462	9447	9437
10°	8904	8864	8899
15°	8158	7981	7935
20°	7409	7493	7112
25°	7027	7168	7016
30°	6788	6759	6861
35°	6589	6589	6589
40°	6425	6450	6610
45°	6266	6259	6454
50°	6130	6175	6366
55°	6065	6039	6313
60°	5986	5977	6281
65°	5910	5724	6246
70°	5796	5466	6083
75°	5365	4853	5631
80°	4351	3956	4465
85°	2757	2476	2421



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.7	4.3
10°-20°	814.2	10.9
20°-30°	1099.6	14.7
30°-40°	1259.2	16.8
40°-50°	1289.8	17.2
50°-60°	1170.3	15.6
60°-70°	913.4	12.2
70°-80°	518.0	6.9
80°-90°	108.7	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°	2239.4	29.9
0°-40°	3498.6	46.7
0°-60°	5958.7	79.5
0°-90°	7498.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7498.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3506	3506	3506	3506	3506	
5°	3503	3463	3497	3505	3494	327
15°	2928	2938	2865	2879	2848	818
25°	2367	2398	2414	2356	2363	1092
35°	2006	2009	2006	2008	2006	1256
45°	1646	1659	1645	1712	1696	1273
55°	1293	1291	1287	1333	1346	1155
65°	928	908	899	941	981	920
75°	516	478	467	494	542	540
85°	89	80	80	75	78	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3506.4	3506.4	3506.4	3506.4	3506.4
2.5°	3528.3	3501.0	3477.2	3515.5	3511.9
5°	3502.8	3462.7	3497.3	3504.6	3493.7
7.5°	3435.3	3409.8	3411.6	3397.0	3395.2
10°	3258.4	3273.0	3243.9	3269.4	3256.6
12.5°	3107.1	3116.2	3065.2	3076.1	3061.5
15°	2928.4	2937.5	2864.6	2879.2	2848.2
17.5°	2733.3	2766.1	2705.9	2724.2	2691.4
20°	2587.4	2614.8	2616.6	2587.4	2483.5
22.5°	2472.5	2499.9	2521.8	2434.3	2423.3
25°	2366.8	2397.8	2414.2	2355.9	2363.1
27.5°	2261.0	2295.7	2295.7	2308.4	2292.0
30°	2184.4	2199.0	2175.3	2222.7	2208.2
32.5°	2093.3	2098.7	2078.7	2113.3	2062.3
35°	2005.8	2009.4	2005.8	2007.6	2005.8
37.5°	1921.9	1912.8	1929.2	1918.2	1952.9
40°	1828.9	1828.9	1836.2	1854.4	1881.8
42.5°	1743.2	1750.5	1741.4	1792.4	1803.4
45°	1646.5	1659.3	1644.7	1712.2	1695.8
47.5°	1559.0	1564.5	1560.8	1606.4	1610.1
50°	1464.2	1471.5	1475.1	1515.3	1520.7
52.5°	1385.8	1384.0	1371.2	1429.6	1438.7
55°	1292.8	1291.0	1287.3	1332.9	1345.7
57.5°	1198.0	1199.8	1208.9	1234.5	1265.4
60°	1112.3	1103.2	1110.5	1141.5	1167.0
62.5°	1024.8	1008.3	991.9	1043.0	1066.7
65°	928.1	908.1	898.9	940.9	981.0
67.5°	838.8	805.9	800.5	829.7	877.1
70°	736.7	696.5	694.7	716.6	773.1
72.5°	623.6	589.0	579.8	609.0	660.1
75°	516.0	477.7	466.8	494.1	541.6
77.5°	399.3	368.3	361.0	375.6	413.9
80°	280.8	262.6	255.3	260.7	288.1
82.5°	176.9	164.1	160.5	158.6	173.2
85°	89.3	80.2	80.2	74.8	78.4
87.5°	27.4	25.5	23.7	18.2	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)