

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: P485733

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-50-120-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: P485733
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-LD4-3STD-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

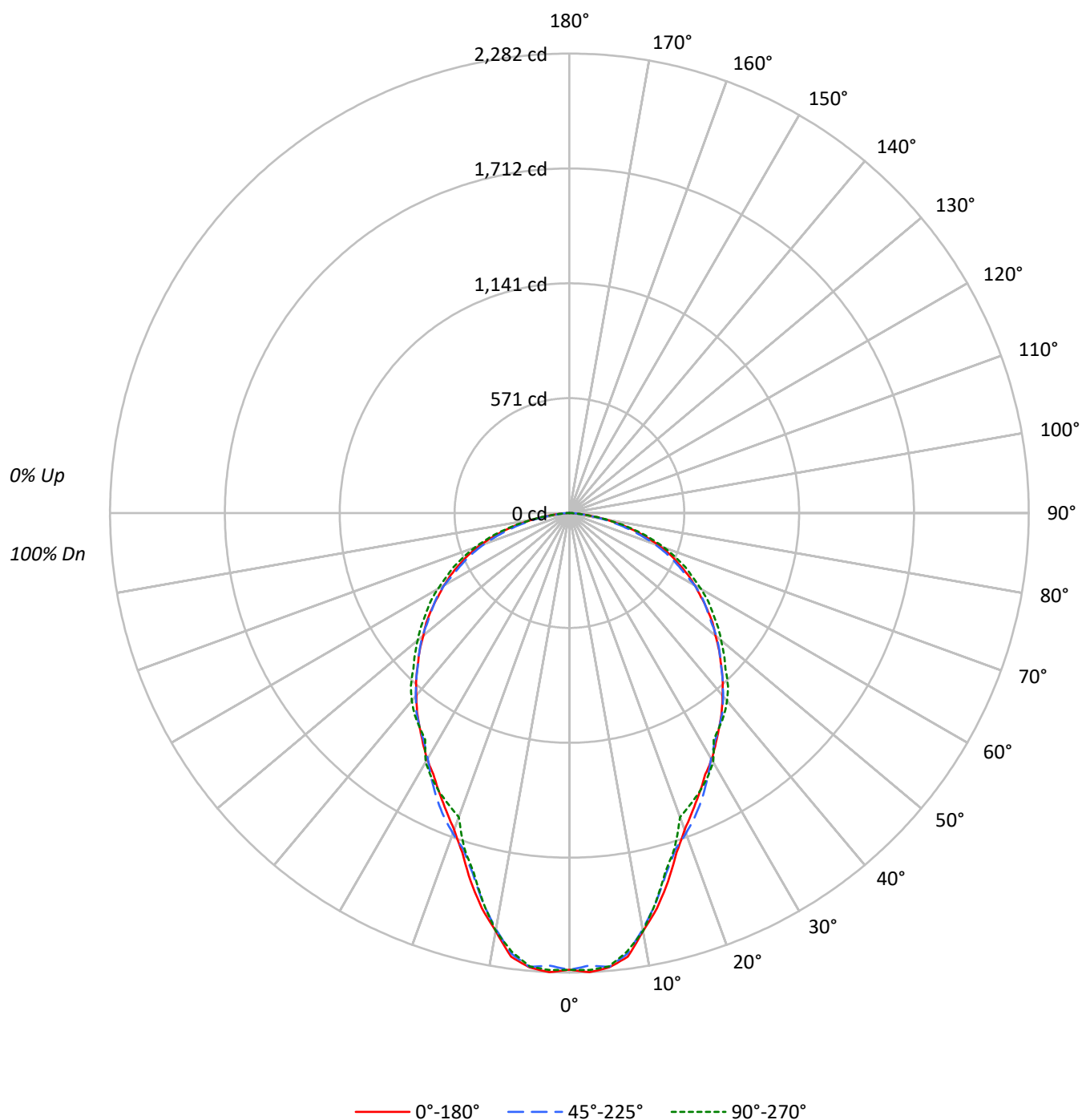
Lumens per Lamp: N/A
Luminaire Lumens: 4850.6 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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					10
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°	6103	6103	6103
5°	6120	6111	6104
10°	5759	5734	5756
15°	5277	5162	5132
20°	4793	4847	4600
25°	4545	4637	4539
30°	4391	4372	4438
35°	4262	4262	4262
40°	4156	4172	4276
45°	4053	4049	4174
50°	3965	3995	4118
55°	3923	3907	4084
60°	3872	3866	4063
65°	3822	3703	4040
70°	3749	3536	3935
75°	3471	3139	3642
80°	2814	2559	2889
85°	1785	1602	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.7	4.3
10°-20°	526.7	10.9
20°-30°	711.2	14.7
30°-40°	814.5	16.8
40°-50°	834.3	17.2
50°-60°	757.0	15.6
60°-70°	590.8	12.2
70°-80°	335.1	6.9
80°-90°	70.3	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°	1448.6	29.9
0°-40°	2263.0	46.7
0°-60°	3854.3	79.5
0°-90°	4850.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4850.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2268	2268	2268	2268	2268	
5°	2266	2240	2262	2267	2260	212
15°	1894	1900	1853	1862	1842	529
25°	1531	1551	1562	1524	1529	706
35°	1297	1300	1297	1299	1297	813
45°	1065	1073	1064	1108	1097	823
55°	836	835	833	862	870	747
65°	600	587	582	609	634	595
75°	334	309	302	320	350	349
85°	58	52	52	48	51	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2268.1	2268.1	2268.1	2268.1	2268.1
2.5°	2282.3	2264.6	2249.2	2274.0	2271.6
5°	2265.7	2239.8	2262.2	2266.9	2259.8
7.5°	2222.1	2205.6	2206.8	2197.3	2196.2
10°	2107.7	2117.1	2098.3	2114.8	2106.5
12.5°	2009.8	2015.7	1982.7	1989.7	1980.3
15°	1894.2	1900.1	1852.9	1862.4	1842.3
17.5°	1768.0	1789.2	1750.3	1762.1	1740.9
20°	1673.7	1691.3	1692.5	1673.7	1606.4
22.5°	1599.3	1617.0	1631.2	1574.6	1567.5
25°	1530.9	1551.0	1561.6	1523.9	1528.6
27.5°	1462.5	1484.9	1484.9	1493.2	1482.6
30°	1413.0	1422.4	1407.1	1437.8	1428.3
32.5°	1354.0	1357.6	1344.6	1367.0	1334.0
35°	1297.4	1299.8	1297.4	1298.6	1297.4
37.5°	1243.2	1237.3	1247.9	1240.8	1263.2
40°	1183.0	1183.0	1187.7	1199.5	1217.2
42.5°	1127.6	1132.3	1126.4	1159.4	1166.5
45°	1065.1	1073.3	1063.9	1107.5	1096.9
47.5°	1008.4	1012.0	1009.6	1039.1	1041.5
50°	947.1	951.8	954.2	980.1	983.7
52.5°	896.4	895.2	887.0	924.7	930.6
55°	836.2	835.1	832.7	862.2	870.4
57.5°	774.9	776.1	782.0	798.5	818.5
60°	719.5	713.6	718.3	738.3	754.9
62.5°	662.9	652.2	641.6	674.7	690.0
65°	600.3	587.4	581.5	608.6	634.5
67.5°	542.6	521.3	517.8	536.7	567.3
70°	476.5	450.6	449.4	463.5	500.1
72.5°	403.4	381.0	375.1	393.9	427.0
75°	333.8	309.0	301.9	319.6	350.3
77.5°	258.3	238.3	233.5	243.0	267.7
80°	181.6	169.8	165.1	168.7	186.4
82.5°	114.4	106.2	103.8	102.6	112.0
85°	57.8	51.9	51.9	48.4	50.7
87.5°	17.7	16.5	15.3	11.8	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)