

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: P485699

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-20-120-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: P485699
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-LD4-3HI-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

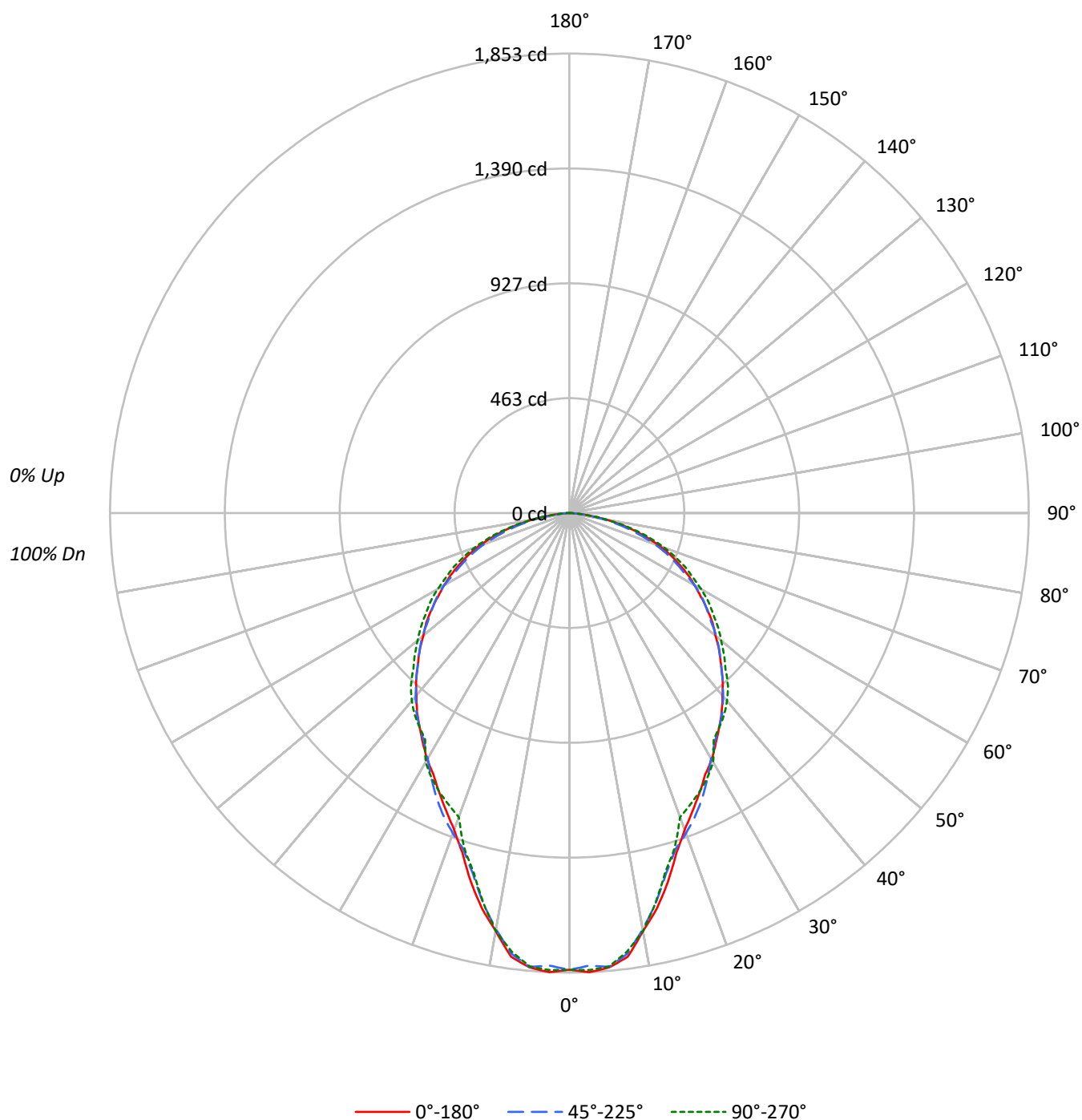
Lumens per Lamp: N/A
Luminaire Lumens: 3938.8 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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°	4956	4956	4956
5°	4970	4962	4957
10°	4677	4656	4674
15°	4285	4192	4168
20°	3892	3936	3736
25°	3691	3765	3685
30°	3565	3550	3604
35°	3461	3461	3461
40°	3374	3388	3472
45°	3291	3288	3390
50°	3220	3244	3344
55°	3186	3172	3316
60°	3144	3139	3299
65°	3104	3007	3281
70°	3044	2871	3195
75°	2818	2549	2958
80°	2286	2078	2345
85°	1448	1300	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.1	4.3
10°-20°	427.7	10.9
20°-30°	577.5	14.7
30°-40°	661.4	16.8
40°-50°	677.5	17.2
50°-60°	614.7	15.6
60°-70°	479.8	12.2
70°-80°	272.1	6.9
80°-90°	57.1	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°	1176.3	29.9
0°-40°	1837.6	46.7
0°-60°	3129.8	79.5
0°-90°	3938.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3938.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1842	1842	1842	1842	1842	
5°	1840	1819	1837	1841	1835	172
15°	1538	1543	1505	1512	1496	430
25°	1243	1259	1268	1237	1241	574
35°	1054	1055	1054	1054	1054	660
45°	865	872	864	899	891	669
55°	679	678	676	700	707	607
65°	488	477	472	494	515	483
75°	271	251	245	260	284	284
85°	47	42	42	39	41	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1841.8	1841.8	1841.8	1841.8	1841.8
2.5°	1853.2	1838.9	1826.4	1846.5	1844.6
5°	1839.8	1818.8	1837.0	1840.8	1835.0
7.5°	1804.4	1791.0	1791.9	1784.3	1783.3
10°	1711.5	1719.2	1703.8	1717.2	1710.5
12.5°	1632.0	1636.8	1610.0	1615.7	1608.1
15°	1538.1	1542.9	1504.6	1512.3	1496.0
17.5°	1435.7	1452.9	1421.3	1430.9	1413.6
20°	1359.0	1373.4	1374.4	1359.0	1304.5
22.5°	1298.7	1313.1	1324.6	1278.6	1272.8
25°	1243.2	1259.4	1268.1	1237.4	1241.2
27.5°	1187.6	1205.8	1205.8	1212.5	1203.9
30°	1147.4	1155.0	1142.6	1167.5	1159.8
32.5°	1099.5	1102.4	1091.8	1110.0	1083.2
35°	1053.5	1055.4	1053.5	1054.5	1053.5
37.5°	1009.5	1004.7	1013.3	1007.6	1025.7
40°	960.6	960.6	964.5	974.0	988.4
42.5°	915.6	919.4	914.6	941.5	947.2
45°	864.8	871.6	863.9	899.3	890.7
47.5°	818.9	821.7	819.8	843.8	845.7
50°	769.1	772.9	774.8	795.9	798.8
52.5°	727.9	726.9	720.2	750.9	755.7
55°	679.0	678.1	676.2	700.1	706.8
57.5°	629.2	630.2	635.0	648.4	664.7
60°	584.2	579.4	583.3	599.6	613.0
62.5°	538.3	529.6	521.0	547.8	560.3
65°	487.5	477.0	472.2	494.2	515.3
67.5°	440.6	423.3	420.5	435.8	460.7
70°	386.9	365.9	364.9	376.4	406.1
72.5°	327.6	309.4	304.6	319.9	346.7
75°	271.0	250.9	245.2	259.5	284.5
77.5°	209.7	193.5	189.6	197.3	217.4
80°	147.5	137.9	134.1	137.0	151.3
82.5°	92.9	86.2	84.3	83.3	91.0
85°	46.9	42.1	42.1	39.3	41.2
87.5°	14.4	13.4	12.5	9.6	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)