

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: P485029

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2LO-27-120-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: P485029
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-12-4-INS-89BC-LD4-2LO-27-120-EDD
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

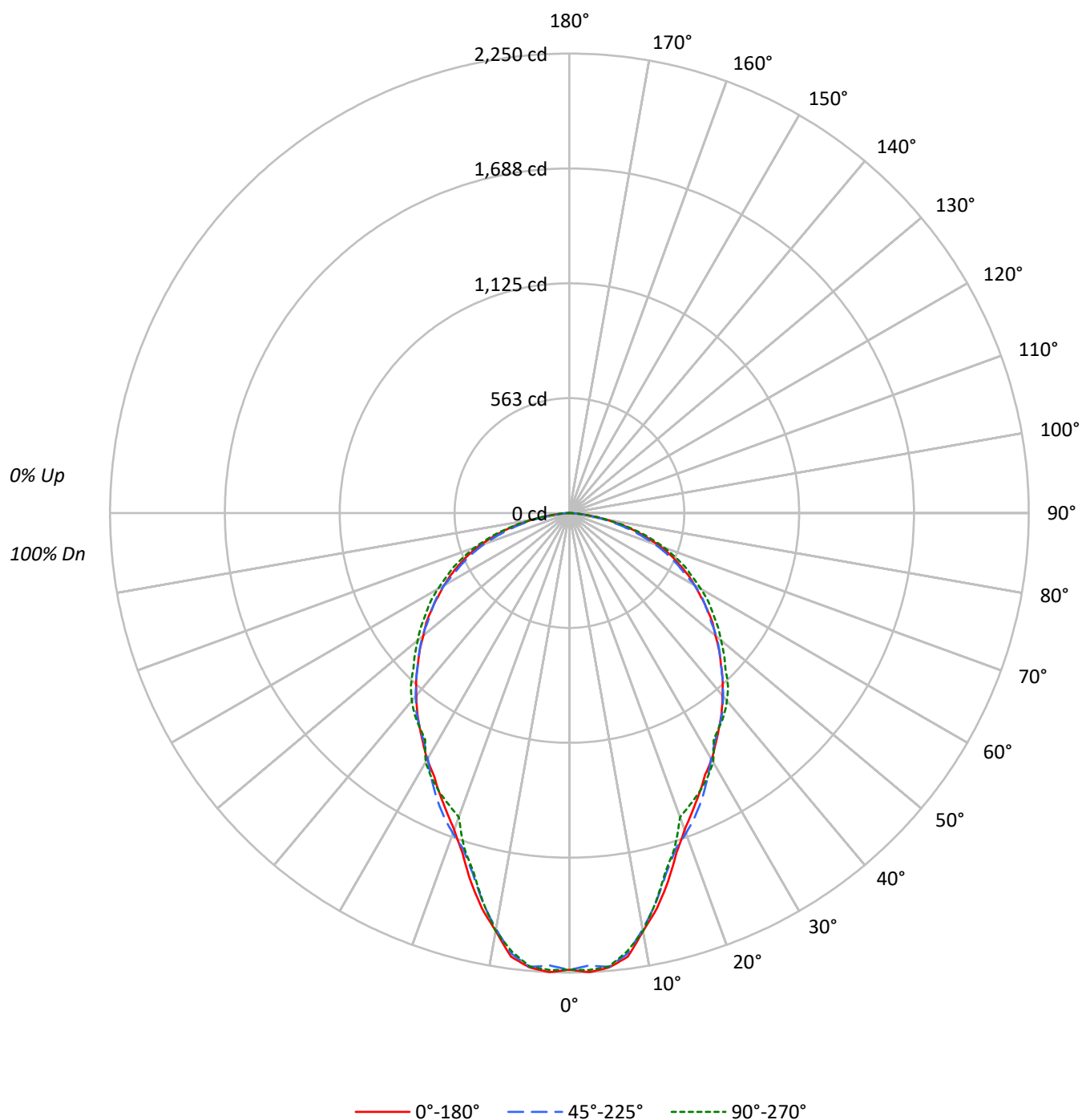
Lumens per Lamp: N/A
Luminaire Lumens: 4782.1 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6017	6017	6017
5°	6034	6025	6018
10°	5678	5652	5675
15°	5203	5089	5060
20°	4725	4778	4535
25°	4481	4571	4475
30°	4328	4310	4376
35°	4202	4202	4202
40°	4097	4113	4215
45°	3996	3991	4115
50°	3909	3938	4060
55°	3868	3851	4026
60°	3817	3811	4005
65°	3769	3650	3983
70°	3696	3485	3879
75°	3422	3095	3591
80°	2775	2523	2847
85°	1760	1581	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.7	4.3
10°-20°	519.2	10.9
20°-30°	701.2	14.7
30°-40°	803.0	16.8
40°-50°	822.5	17.2
50°-60°	746.3	15.6
60°-70°	582.5	12.2
70°-80°	330.4	6.9
80°-90°	69.4	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°	1428.1	29.9
0°-40°	2231.1	46.7
0°-60°	3799.9	79.5
0°-90°	4782.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4782.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2236	2236	2236	2236	2236	
5°	2234	2208	2230	2235	2228	209
15°	1868	1873	1827	1836	1816	522
25°	1509	1529	1540	1502	1507	696
35°	1279	1281	1279	1280	1279	801
45°	1050	1058	1049	1092	1081	812
55°	824	823	821	850	858	737
65°	592	579	573	600	626	587
75°	329	305	298	315	345	344
85°	57	51	51	48	50	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2236.1	2236.1	2236.1	2236.1	2236.1
2.5°	2250.0	2232.6	2217.5	2241.9	2239.6
5°	2233.7	2208.2	2230.3	2234.9	2227.9
7.5°	2190.7	2174.4	2175.6	2166.3	2165.1
10°	2077.9	2087.2	2068.6	2084.9	2076.8
12.5°	1981.4	1987.2	1954.7	1961.6	1952.3
15°	1867.5	1873.3	1826.8	1836.1	1816.3
17.5°	1743.0	1764.0	1725.6	1737.2	1716.3
20°	1650.0	1667.5	1668.6	1650.0	1583.7
22.5°	1576.8	1594.2	1608.2	1552.3	1545.4
25°	1509.3	1529.1	1539.6	1502.3	1507.0
27.5°	1441.9	1464.0	1464.0	1472.1	1461.6
30°	1393.0	1402.3	1387.2	1417.5	1408.2
32.5°	1334.9	1338.4	1325.6	1347.7	1315.1
35°	1279.1	1281.4	1279.1	1280.2	1279.1
37.5°	1225.6	1219.8	1230.2	1223.3	1245.4
40°	1166.3	1166.3	1170.9	1182.6	1200.0
42.5°	1111.6	1116.3	1110.5	1143.0	1150.0
45°	1050.0	1058.2	1048.8	1091.9	1081.4
47.5°	994.2	997.7	995.4	1024.4	1026.8
50°	933.7	938.4	940.7	966.3	969.8
52.5°	883.7	882.6	874.4	911.6	917.5
55°	824.4	823.3	820.9	850.0	858.1
57.5°	764.0	765.1	770.9	787.2	807.0
60°	709.3	703.5	708.1	727.9	744.2
62.5°	653.5	643.0	632.6	665.1	680.2
65°	591.9	579.1	573.3	600.0	625.6
67.5°	534.9	514.0	510.5	529.1	559.3
70°	469.8	444.2	443.0	457.0	493.0
72.5°	397.7	375.6	369.8	388.4	420.9
75°	329.1	304.7	297.7	315.1	345.4
77.5°	254.7	234.9	230.2	239.5	264.0
80°	179.1	167.4	162.8	166.3	183.7
82.5°	112.8	104.7	102.3	101.2	110.5
85°	57.0	51.2	51.2	47.7	50.0
87.5°	17.4	16.3	15.1	11.6	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)