

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: P485014

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-2HI-20-120-EDD-90**

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: P485014
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-LD4-2HI-20-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

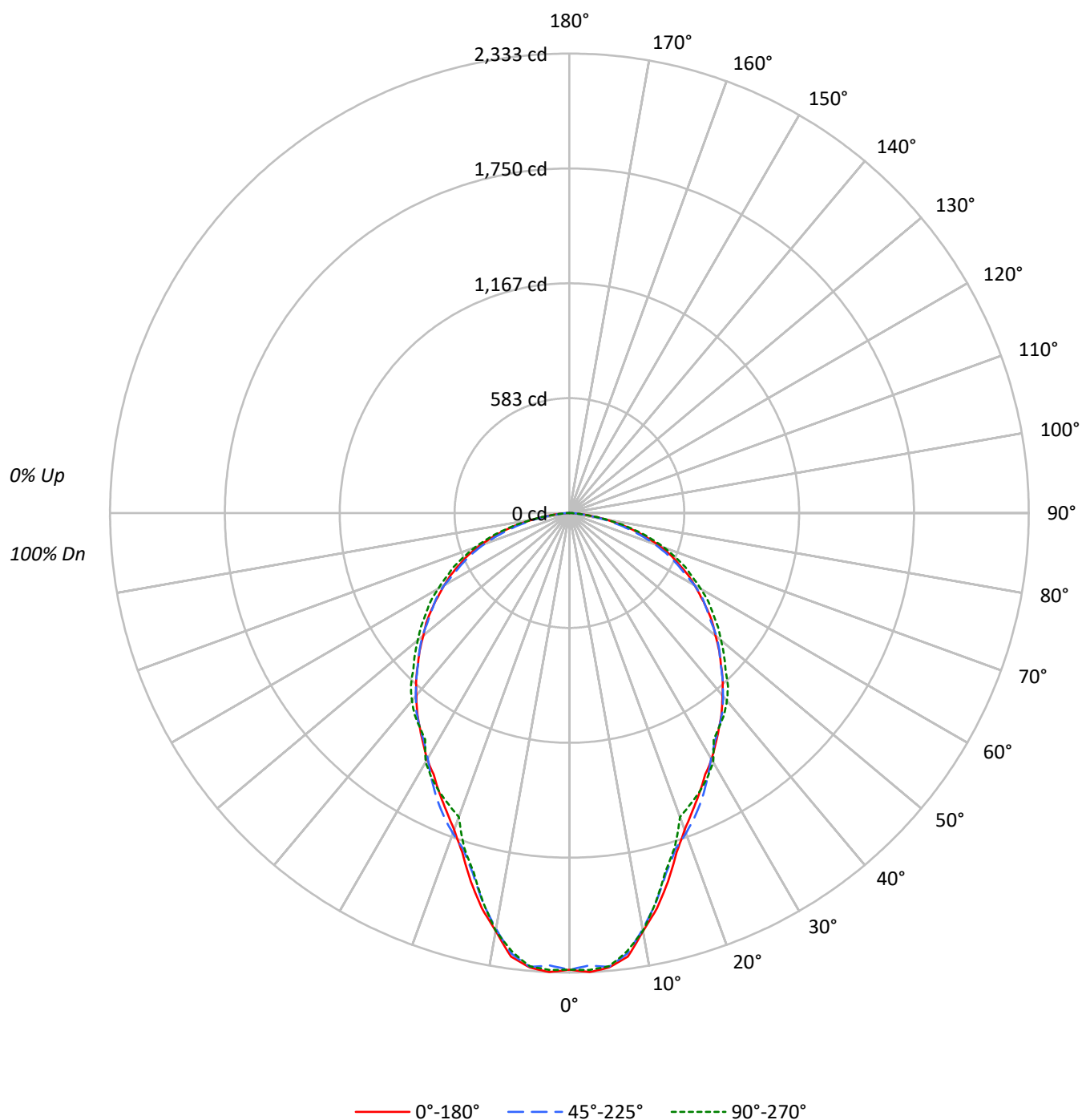
Lumens per Lamp: N/A
Luminaire Lumens: 4957.7 lumens
Efficiency: N/A
Efficacy: 56.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6238	6238	6238
5°	6256	6246	6239
10°	5886	5860	5883
15°	5394	5276	5246
20°	4899	4954	4702
25°	4646	4739	4639
30°	4488	4469	4536
35°	4356	4356	4356
40°	4247	4264	4370
45°	4143	4138	4266
50°	4052	4083	4209
55°	4010	3993	4174
60°	3958	3951	4152
65°	3907	3784	4130
70°	3832	3614	4021
75°	3548	3209	3722
80°	2876	2616	2952
85°	1825	1636	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.3	4.3
10°-20°	538.3	10.9
20°-30°	726.9	14.7
30°-40°	832.5	16.8
40°-50°	852.7	17.2
50°-60°	773.7	15.6
60°-70°	603.9	12.2
70°-80°	342.5	6.9
80°-90°	71.9	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°	1480.5	29.9
0°-40°	2313.0	46.7
0°-60°	3939.4	79.5
0°-90°	4957.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4957.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2318	2318	2318	2318	2318	
5°	2316	2289	2312	2317	2310	216
15°	1936	1942	1894	1904	1883	541
25°	1565	1585	1596	1558	1562	722
35°	1326	1328	1326	1327	1326	831
45°	1089	1097	1087	1132	1121	842
55°	855	854	851	881	890	764
65°	614	600	594	622	649	608
75°	341	316	309	327	358	357
85°	59	53	53	49	52	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2318.2	2318.2	2318.2	2318.2	2318.2
2.5°	2332.6	2314.6	2298.9	2324.2	2321.8
5°	2315.8	2289.2	2312.2	2317.0	2309.7
7.5°	2271.2	2254.3	2255.5	2245.8	2244.6
10°	2154.2	2163.9	2144.6	2161.5	2153.0
12.5°	2054.2	2060.2	2026.4	2033.7	2024.0
15°	1936.0	1942.1	1893.8	1903.5	1883.0
17.5°	1807.0	1828.7	1789.0	1801.0	1779.3
20°	1710.6	1728.7	1729.9	1710.6	1641.9
22.5°	1634.7	1652.7	1667.2	1609.3	1602.1
25°	1564.7	1585.2	1596.1	1557.5	1562.3
27.5°	1494.8	1517.7	1517.7	1526.2	1515.3
30°	1444.2	1453.8	1438.2	1469.5	1459.9
32.5°	1383.9	1387.5	1374.3	1397.2	1363.4
35°	1326.1	1328.5	1326.1	1327.3	1326.1
37.5°	1270.6	1264.6	1275.4	1268.2	1291.1
40°	1209.1	1209.1	1213.9	1226.0	1244.1
42.5°	1152.5	1157.3	1151.3	1185.0	1192.2
45°	1088.6	1097.0	1087.4	1132.0	1121.1
47.5°	1030.7	1034.3	1031.9	1062.0	1064.5
50°	968.0	972.8	975.3	1001.8	1005.4
52.5°	916.2	915.0	906.5	945.1	951.1
55°	854.7	853.5	851.1	881.2	889.7
57.5°	792.0	793.2	799.2	816.1	836.6
60°	735.4	729.3	734.2	754.6	771.5
62.5°	677.5	666.6	655.8	689.5	705.2
65°	613.6	600.3	594.3	622.0	648.6
67.5°	554.5	532.8	529.2	548.5	579.8
70°	487.0	460.5	459.3	473.8	511.1
72.5°	412.3	389.4	383.3	402.6	436.4
75°	341.2	315.8	308.6	326.7	358.0
77.5°	264.0	243.5	238.7	248.3	273.6
80°	185.6	173.6	168.8	172.4	190.5
82.5°	116.9	108.5	106.1	104.9	114.5
85°	59.1	53.0	53.0	49.4	51.8
87.5°	18.1	16.9	15.7	12.1	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)