

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: P485818

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6LO-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: P485818
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-LD4-6LO-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

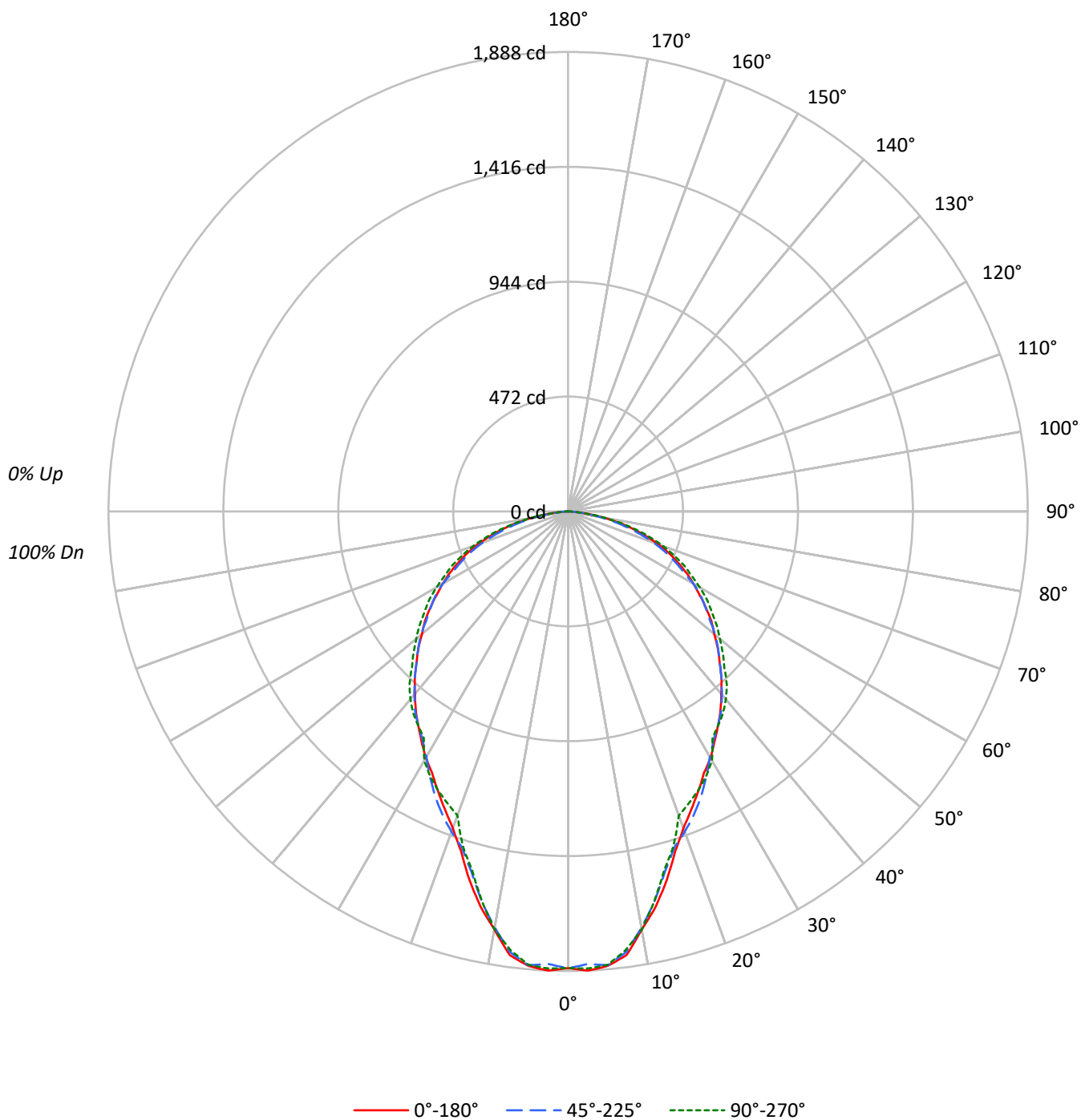
Lumens per Lamp: N/A
Luminaire Lumens: 4013.0 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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				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°	5049	5049	5049
5°	5064	5056	5050
10°	4765	4743	4762
15°	4366	4271	4246
20°	3965	4010	3806
25°	3761	3836	3755
30°	3632	3617	3672
35°	3526	3526	3526
40°	3438	3452	3537
45°	3353	3350	3454
50°	3280	3305	3407
55°	3246	3232	3378
60°	3203	3198	3361
65°	3163	3063	3343
70°	3102	2925	3255
75°	2871	2597	3013
80°	2329	2117	2390
85°	1476	1325	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.3	4.3
10°-20°	435.7	10.9
20°-30°	588.4	14.7
30°-40°	673.8	16.8
40°-50°	690.2	17.2
50°-60°	626.3	15.6
60°-70°	488.8	12.2
70°-80°	277.2	6.9
80°-90°	58.2	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°	1198.4	29.9
0°-40°	1872.3	46.7
0°-60°	3188.8	79.5
0°-90°	4013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4013.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1876	1876	1876	1876	1876	
5°	1874	1853	1872	1876	1870	175
15°	1567	1572	1533	1541	1524	438
25°	1267	1283	1292	1261	1265	584
35°	1073	1075	1073	1074	1073	672
45°	881	888	880	916	908	681
55°	692	691	689	713	720	618
65°	497	486	481	504	525	492
75°	276	256	250	264	290	289
85°	48	43	43	40	42	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1876.4	1876.4	1876.4	1876.4	1876.4
2.5°	1888.2	1873.5	1860.8	1881.3	1879.4
5°	1874.5	1853.0	1871.6	1875.5	1869.6
7.5°	1838.4	1824.7	1825.7	1817.9	1816.9
10°	1743.7	1751.5	1735.9	1749.6	1742.8
12.5°	1662.7	1667.6	1640.3	1646.2	1638.4
15°	1567.1	1572.0	1533.0	1540.8	1524.2
17.5°	1462.7	1480.3	1448.1	1457.8	1440.3
20°	1384.6	1399.3	1400.3	1384.6	1329.0
22.5°	1323.2	1337.8	1349.5	1302.7	1296.8
25°	1266.6	1283.2	1291.9	1260.7	1264.6
27.5°	1210.0	1228.5	1228.5	1235.4	1226.6
30°	1169.0	1176.8	1164.1	1189.5	1181.7
32.5°	1120.2	1123.1	1112.4	1130.9	1103.6
35°	1073.4	1075.3	1073.4	1074.3	1073.4
37.5°	1028.5	1023.6	1032.4	1026.5	1045.1
40°	978.7	978.7	982.6	992.4	1007.0
42.5°	932.9	936.8	931.9	959.2	965.1
45°	881.1	888.0	880.2	916.3	907.5
47.5°	834.3	837.2	835.3	859.7	861.6
50°	783.6	787.5	789.4	810.9	813.8
52.5°	741.6	740.6	733.8	765.0	769.9
55°	691.8	690.9	688.9	713.3	720.1
57.5°	641.1	642.1	646.9	660.6	677.2
60°	595.2	590.4	594.3	610.8	624.5
62.5°	548.4	539.6	530.8	558.2	570.8
65°	496.7	485.9	481.1	503.5	525.0
67.5°	448.9	431.3	428.4	444.0	469.4
70°	394.2	372.8	371.8	383.5	413.7
72.5°	333.7	315.2	310.3	325.9	353.2
75°	276.1	255.7	249.8	264.4	289.8
77.5°	213.7	197.1	193.2	201.0	221.5
80°	150.3	140.5	136.6	139.5	154.2
82.5°	94.7	87.8	85.9	84.9	92.7
85°	47.8	42.9	42.9	40.0	42.0
87.5°	14.6	13.7	12.7	9.8	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)