

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: P485675

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-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: P485675
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-LD4-2LO-20-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

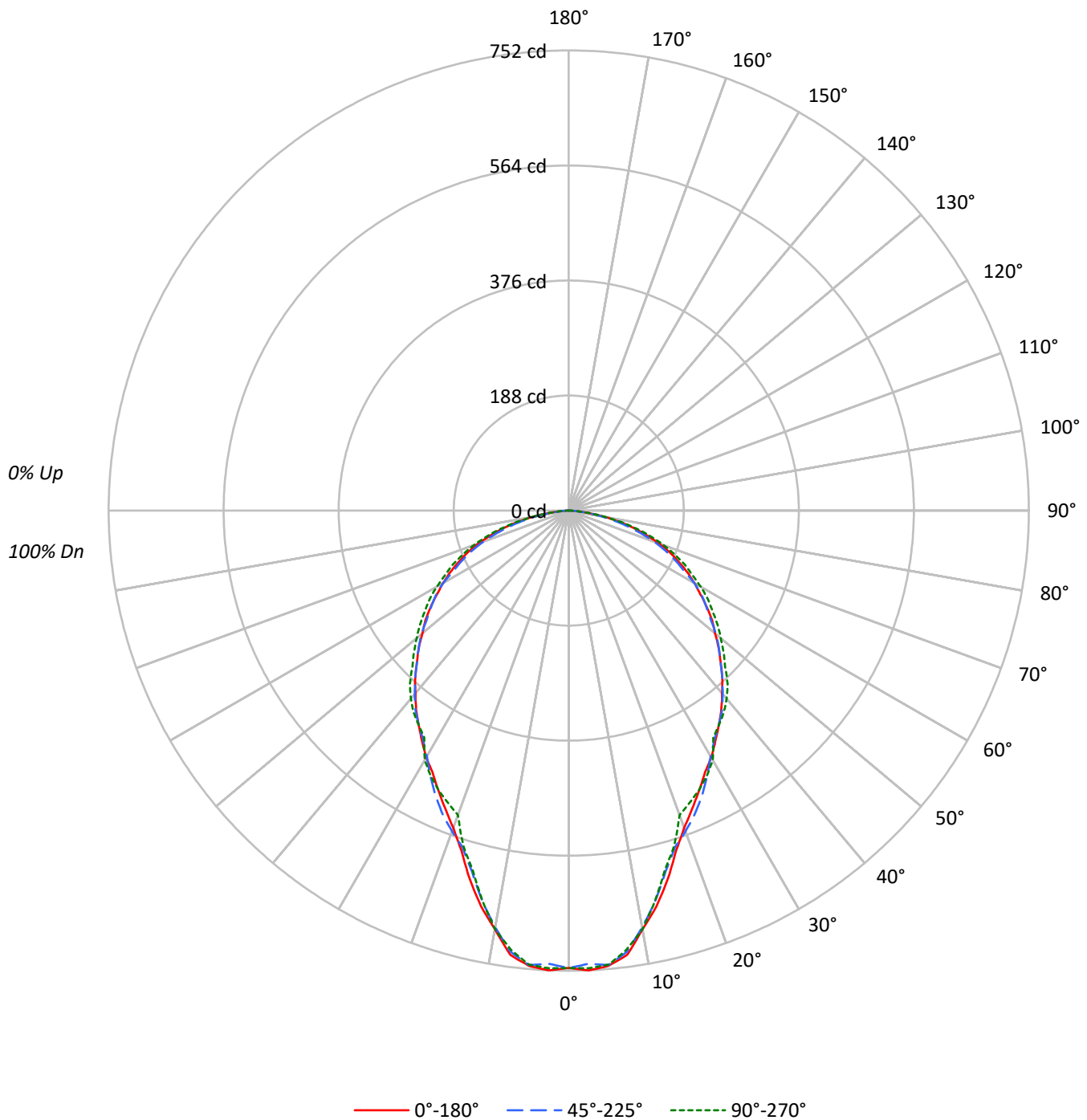
Lumens per Lamp: N/A
Luminaire Lumens: 1598.6 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2012	2012	2012
5°	2017	2014	2012
10°	1898	1890	1897
15°	1739	1701	1692
20°	1580	1597	1516
25°	1498	1528	1496
30°	1447	1441	1463
35°	1405	1405	1405
40°	1370	1375	1409
45°	1336	1334	1376
50°	1307	1317	1357
55°	1293	1287	1346
60°	1276	1274	1339
65°	1260	1220	1331
70°	1235	1165	1297
75°	1144	1035	1200
80°	928	843	951
85°	587	528	516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	4.3
10°-20°	173.6	10.9
20°-30°	234.4	14.7
30°-40°	268.4	16.8
40°-50°	274.9	17.2
50°-60°	249.5	15.6
60°-70°	194.7	12.2
70°-80°	110.4	6.9
80°-90°	23.2	1.4
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°	477.4	29.9
0°-40°	745.8	46.7
0°-60°	1270.3	79.5
0°-90°	1598.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1598.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	747	738	746	747	745	70
15°	624	626	611	614	607	174
25°	504	511	515	502	504	233
35°	428	428	428	428	428	268
45°	351	354	351	365	362	271
55°	276	275	274	284	287	246
65°	198	194	192	201	209	196
75°	110	102	100	105	115	115
85°	19	17	17	16	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	747.5	747.5	747.5	747.5	747.5
2.5°	752.2	746.3	741.3	749.4	748.7
5°	746.7	738.2	745.5	747.1	744.8
7.5°	732.3	726.9	727.3	724.2	723.8
10°	694.6	697.7	691.5	697.0	694.2
12.5°	662.4	664.3	653.4	655.8	652.6
15°	624.3	626.2	610.7	613.8	607.2
17.5°	582.7	589.7	576.8	580.7	573.7
20°	551.6	557.4	557.8	551.6	529.4
22.5°	527.1	532.9	537.6	518.9	516.6
25°	504.5	511.2	514.7	502.2	503.8
27.5°	482.0	489.4	489.4	492.1	488.6
30°	465.7	468.8	463.7	473.8	470.7
32.5°	446.2	447.4	443.1	450.5	439.6
35°	427.6	428.4	427.6	428.0	427.6
37.5°	409.7	407.8	411.3	408.9	416.3
40°	389.9	389.9	391.4	395.3	401.2
42.5°	371.6	373.2	371.2	382.1	384.4
45°	351.0	353.7	350.6	365.0	361.5
47.5°	332.3	333.5	332.7	342.5	343.2
50°	312.1	313.7	314.5	323.0	324.2
52.5°	295.4	295.0	292.3	304.7	306.7
55°	275.6	275.2	274.4	284.1	286.9
57.5°	255.4	255.8	257.7	263.2	269.8
60°	237.1	235.2	236.7	243.3	248.8
62.5°	218.5	215.0	211.5	222.3	227.4
65°	197.9	193.6	191.6	200.6	209.1
67.5°	178.8	171.8	170.6	176.9	187.0
70°	157.0	148.5	148.1	152.8	164.8
72.5°	132.9	125.6	123.6	129.8	140.7
75°	110.0	101.8	99.5	105.3	115.4
77.5°	85.1	78.5	77.0	80.1	88.2
80°	59.9	56.0	54.4	55.6	61.4
82.5°	37.7	35.0	34.2	33.8	36.9
85°	19.0	17.1	17.1	15.9	16.7
87.5°	5.8	5.4	5.1	3.9	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)