

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: P485678

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-30-120-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: P485678
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-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

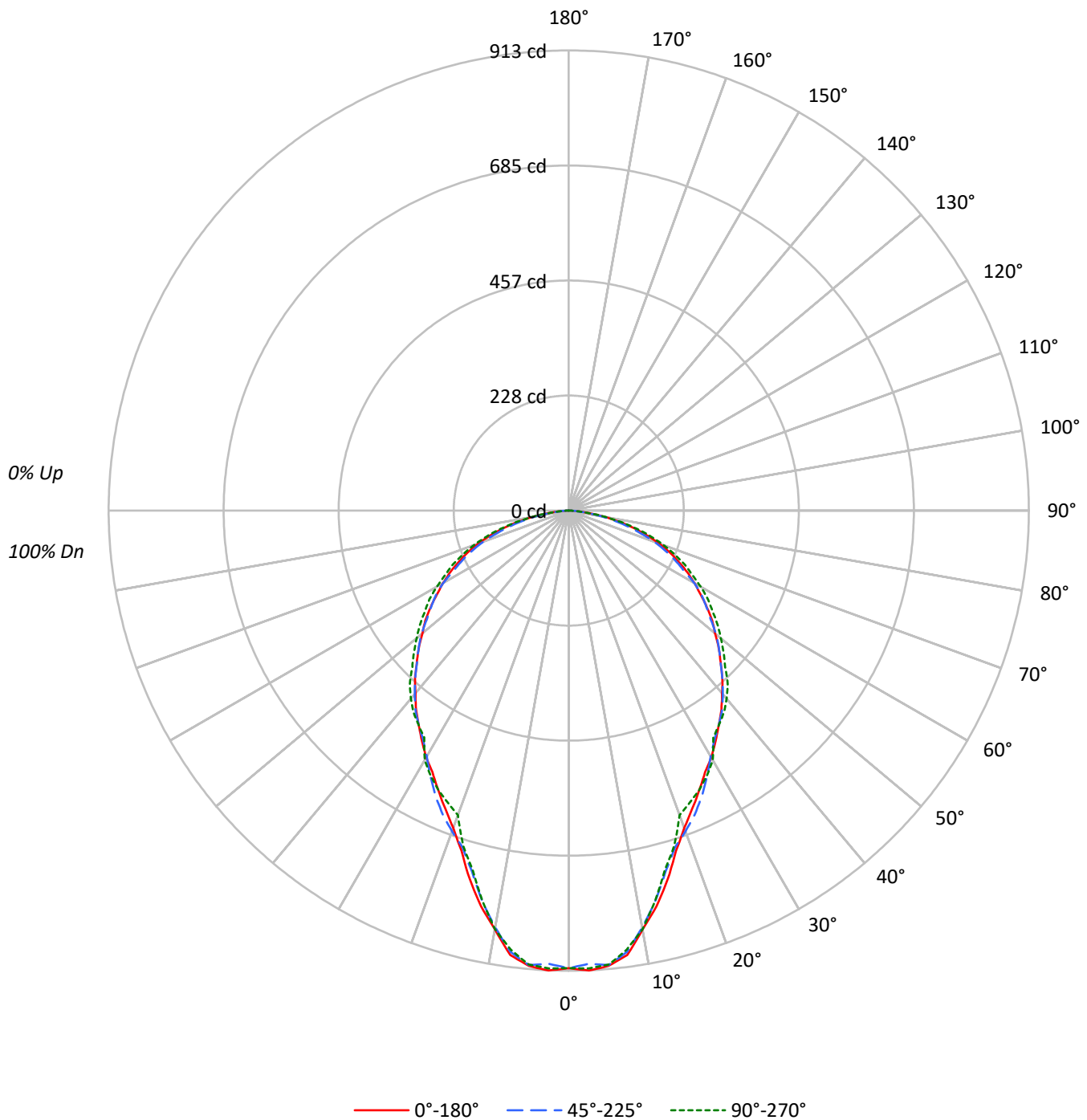
Lumens per Lamp: N/A
Luminaire Lumens: 1941.2 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2443	2443	2443
5°	2449	2445	2443
10°	2305	2294	2303
15°	2112	2066	2054
20°	1918	1940	1841
25°	1819	1856	1816
30°	1757	1750	1776
35°	1706	1706	1706
40°	1663	1670	1711
45°	1622	1620	1671
50°	1587	1599	1648
55°	1570	1563	1634
60°	1549	1547	1626
65°	1530	1482	1617
70°	1500	1415	1574
75°	1389	1256	1458
80°	1127	1024	1156
85°	713	642	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	4.3
10°-20°	210.8	10.9
20°-30°	284.6	14.7
30°-40°	326.0	16.8
40°-50°	333.9	17.2
50°-60°	303.0	15.6
60°-70°	236.4	12.2
70°-80°	134.1	6.9
80°-90°	28.2	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°	579.7	29.9
0°-40°	905.7	46.7
0°-60°	1542.5	79.5
0°-90°	1941.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1941.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	908	908	908	908	908	
5°	907	896	905	907	904	85
15°	758	760	742	745	737	212
25°	613	621	625	610	612	283
35°	519	520	519	520	519	325
45°	426	430	426	443	439	330
55°	335	334	333	345	348	299
65°	240	235	233	244	254	238
75°	134	124	121	128	140	140
85°	23	21	21	19	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	907.7	907.7	907.7	907.7	907.7
2.5°	913.4	906.3	900.1	910.0	909.1
5°	906.7	896.4	905.3	907.2	904.4
7.5°	889.3	882.7	883.1	879.4	878.9
10°	843.5	847.3	839.7	846.3	843.0
12.5°	804.3	806.7	793.5	796.3	792.5
15°	758.1	760.4	741.5	745.3	737.3
17.5°	707.6	716.1	700.5	705.2	696.7
20°	669.8	676.9	677.3	669.8	642.9
22.5°	640.1	647.1	652.8	630.1	627.3
25°	612.7	620.7	625.0	609.8	611.7
27.5°	585.3	594.3	594.3	597.6	593.3
30°	565.5	569.3	563.1	575.4	571.6
32.5°	541.9	543.3	538.1	547.1	533.9
35°	519.2	520.2	519.2	519.7	519.2
37.5°	497.5	495.1	499.4	496.6	505.5
40°	473.4	473.4	475.3	480.0	487.1
42.5°	451.2	453.1	450.8	464.0	466.8
45°	426.2	429.5	425.8	443.2	439.0
47.5°	403.6	405.0	404.0	415.8	416.8
50°	379.0	380.9	381.9	392.2	393.7
52.5°	358.7	358.3	355.0	370.1	372.4
55°	334.7	334.2	333.2	345.0	348.3
57.5°	310.1	310.6	312.9	319.6	327.6
60°	287.9	285.6	287.5	295.5	302.1
62.5°	265.3	261.0	256.8	270.0	276.1
65°	240.3	235.1	232.7	243.6	253.9
67.5°	217.1	208.6	207.2	214.8	227.0
70°	190.7	180.3	179.8	185.5	200.1
72.5°	161.4	152.5	150.1	157.7	170.9
75°	133.6	123.7	120.8	127.9	140.2
77.5°	103.4	95.3	93.5	97.2	107.1
80°	72.7	68.0	66.1	67.5	74.6
82.5°	45.8	42.5	41.5	41.1	44.8
85°	23.1	20.8	20.8	19.4	20.3
87.5°	7.1	6.6	6.1	4.7	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)