

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: P485674

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-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: P485674
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-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

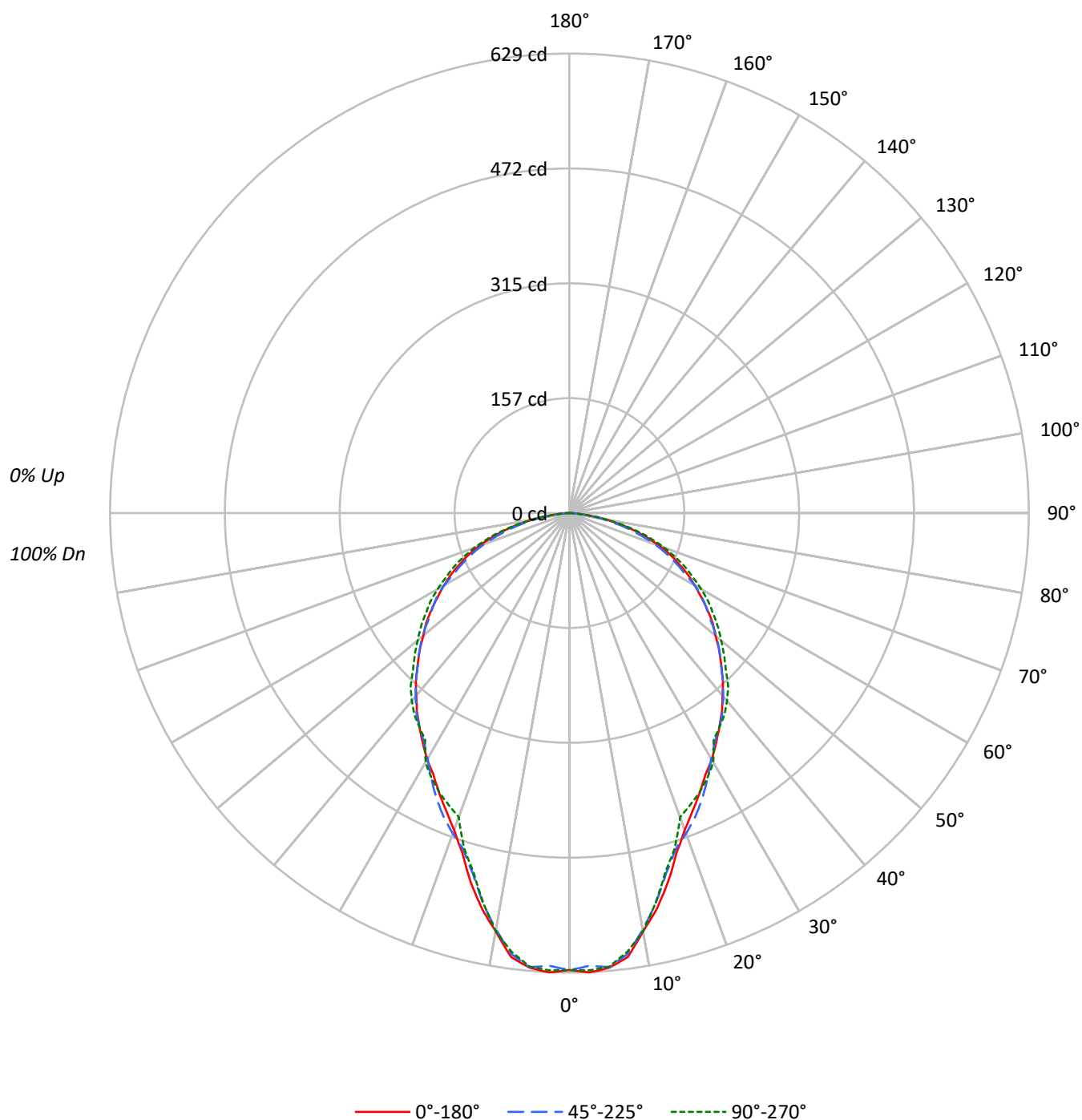
Lumens per Lamp: N/A
Luminaire Lumens: 1337.7 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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				10			
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°	1683	1683	1683
5°	1688	1685	1683
10°	1588	1581	1587
15°	1455	1424	1416
20°	1322	1337	1269
25°	1254	1279	1252
30°	1211	1206	1224
35°	1175	1175	1175
40°	1146	1150	1179
45°	1118	1117	1151
50°	1093	1101	1136
55°	1082	1077	1126
60°	1068	1066	1121
65°	1054	1021	1114
70°	1034	975	1085
75°	958	866	1004
80°	776	705	797
85°	491	442	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	4.3
10°-20°	145.2	10.9
20°-30°	196.1	14.7
30°-40°	224.6	16.8
40°-50°	230.1	17.2
50°-60°	208.8	15.6
60°-70°	162.9	12.2
70°-80°	92.4	6.9
80°-90°	19.4	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°	399.5	29.9
0°-40°	624.1	46.7
0°-60°	1062.9	79.5
0°-90°	1337.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1337.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	626	626	626	626	626	
5°	625	618	624	625	623	58
15°	522	524	511	514	508	146
25°	422	428	431	420	422	195
35°	358	358	358	358	358	224
45°	294	296	293	305	302	227
55°	231	230	230	238	240	206
65°	166	162	160	168	175	164
75°	92	85	83	88	97	96
85°	16	14	14	13	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	625.5	625.5	625.5	625.5	625.5
2.5°	629.4	624.5	620.3	627.1	626.5
5°	624.8	617.7	623.9	625.2	623.2
7.5°	612.8	608.3	608.6	606.0	605.7
10°	581.3	583.9	578.7	583.2	580.9
12.5°	554.3	555.9	546.8	548.7	546.1
15°	522.4	524.0	511.0	513.6	508.1
17.5°	487.6	493.4	482.7	486.0	480.1
20°	461.6	466.4	466.8	461.6	443.0
22.5°	441.1	445.9	449.9	434.2	432.3
25°	422.2	427.7	430.7	420.3	421.6
27.5°	403.3	409.5	409.5	411.8	408.9
30°	389.7	392.3	388.0	396.5	393.9
32.5°	373.4	374.4	370.8	377.0	367.9
35°	357.8	358.4	357.8	358.1	357.8
37.5°	342.8	341.2	344.1	342.2	348.4
40°	326.2	326.2	327.5	330.8	335.7
42.5°	311.0	312.3	310.6	319.7	321.7
45°	293.7	296.0	293.4	305.4	302.5
47.5°	278.1	279.1	278.4	286.6	287.2
50°	261.2	262.5	263.1	270.3	271.3
52.5°	247.2	246.9	244.6	255.0	256.6
55°	230.6	230.3	229.6	237.8	240.1
57.5°	213.7	214.0	215.7	220.2	225.7
60°	198.4	196.8	198.1	203.6	208.2
62.5°	182.8	179.9	176.9	186.1	190.3
65°	165.6	162.0	160.4	167.8	175.0
67.5°	149.6	143.8	142.8	148.0	156.5
70°	131.4	124.3	123.9	127.8	137.9
72.5°	111.2	105.1	103.4	108.6	117.7
75°	92.1	85.2	83.3	88.1	96.6
77.5°	71.2	65.7	64.4	67.0	73.8
80°	50.1	46.8	45.5	46.5	51.4
82.5°	31.6	29.3	28.6	28.3	30.9
85°	15.9	14.3	14.3	13.3	14.0
87.5°	4.9	4.6	4.2	3.3	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)