

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: P485667

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-30-120-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: P485667
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-LD4-2HI-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

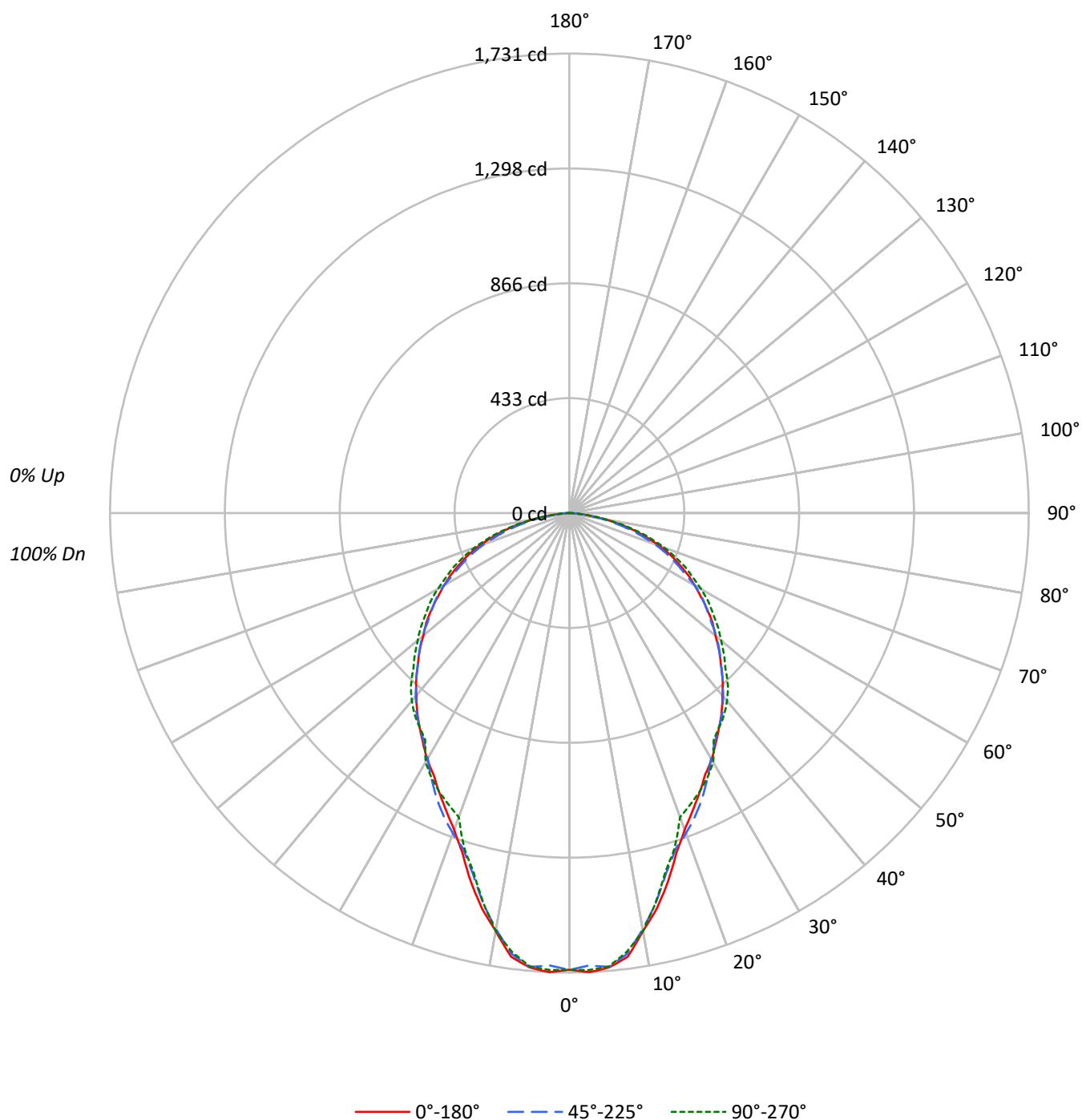
Lumens per Lamp: N/A
Luminaire Lumens: 3679.2 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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°	4630	4630	4630
5°	4642	4635	4630
10°	4368	4349	4366
15°	4003	3916	3893
20°	3635	3676	3489
25°	3448	3517	3442
30°	3330	3316	3366
35°	3233	3233	3233
40°	3152	3165	3243
45°	3074	3071	3166
50°	3008	3030	3123
55°	2976	2963	3097
60°	2937	2932	3082
65°	2900	2809	3065
70°	2843	2682	2984
75°	2633	2381	2763
80°	2135	1940	2191
85°	1352	1216	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.8	4.3
10°-20°	399.5	10.9
20°-30°	539.5	14.7
30°-40°	617.8	16.8
40°-50°	632.8	17.2
50°-60°	574.2	15.6
60°-70°	448.1	12.2
70°-80°	254.2	6.9
80°-90°	53.3	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°	1098.7	29.9
0°-40°	1716.5	46.7
0°-60°	2923.5	79.5
0°-90°	3679.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3679.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1720	1720	1720	1720	1720	
5°	1719	1699	1716	1720	1714	161
15°	1437	1441	1406	1413	1397	402
25°	1161	1176	1184	1156	1159	536
35°	984	986	984	985	984	616
45°	808	814	807	840	832	625
55°	634	633	632	654	660	567
65°	455	446	441	462	481	451
75°	253	234	229	242	266	265
85°	44	39	39	37	38	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1720.4	1720.4	1720.4	1720.4	1720.4
2.5°	1731.1	1717.7	1706.0	1724.8	1723.0
5°	1718.6	1698.9	1715.9	1719.5	1714.1
7.5°	1685.5	1672.9	1673.8	1666.7	1665.8
10°	1598.7	1605.9	1591.5	1604.1	1597.8
12.5°	1524.4	1528.9	1503.9	1509.2	1502.1
15°	1436.8	1441.2	1405.5	1412.6	1397.4
17.5°	1341.0	1357.1	1327.6	1336.6	1320.5
20°	1269.5	1282.9	1283.8	1269.5	1218.5
22.5°	1213.1	1226.5	1237.3	1194.3	1189.0
25°	1161.2	1176.4	1184.5	1155.9	1159.4
27.5°	1109.3	1126.3	1126.3	1132.6	1124.5
30°	1071.8	1078.9	1067.3	1090.5	1083.4
32.5°	1027.0	1029.7	1019.9	1036.9	1011.8
35°	984.1	985.9	984.1	985.0	984.1
37.5°	942.9	938.5	946.5	941.1	958.1
40°	897.3	897.3	900.9	909.8	923.3
42.5°	855.3	858.8	854.4	879.4	884.8
45°	807.8	814.1	807.0	840.1	832.0
47.5°	764.9	767.6	765.8	788.2	790.0
50°	718.4	722.0	723.8	743.4	746.1
52.5°	679.9	679.0	672.8	701.4	705.9
55°	634.3	633.4	631.6	654.0	660.2
57.5°	587.8	588.7	593.1	605.7	620.9
60°	545.7	541.2	544.8	560.0	572.6
62.5°	502.8	494.7	486.7	511.7	523.4
65°	455.4	445.5	441.1	461.6	481.3
67.5°	411.5	395.4	392.7	407.1	430.3
70°	361.4	341.7	340.9	351.6	379.3
72.5°	306.0	289.0	284.5	298.8	323.9
75°	253.2	234.4	229.0	242.4	265.7
77.5°	195.9	180.7	177.1	184.3	203.1
80°	137.8	128.8	125.2	127.9	141.4
82.5°	86.8	80.5	78.7	77.8	85.0
85°	43.8	39.4	39.4	36.7	38.5
87.5°	13.4	12.5	11.6	8.9	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)