

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: P485698

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-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: P485698
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-LD4-3HI-20-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

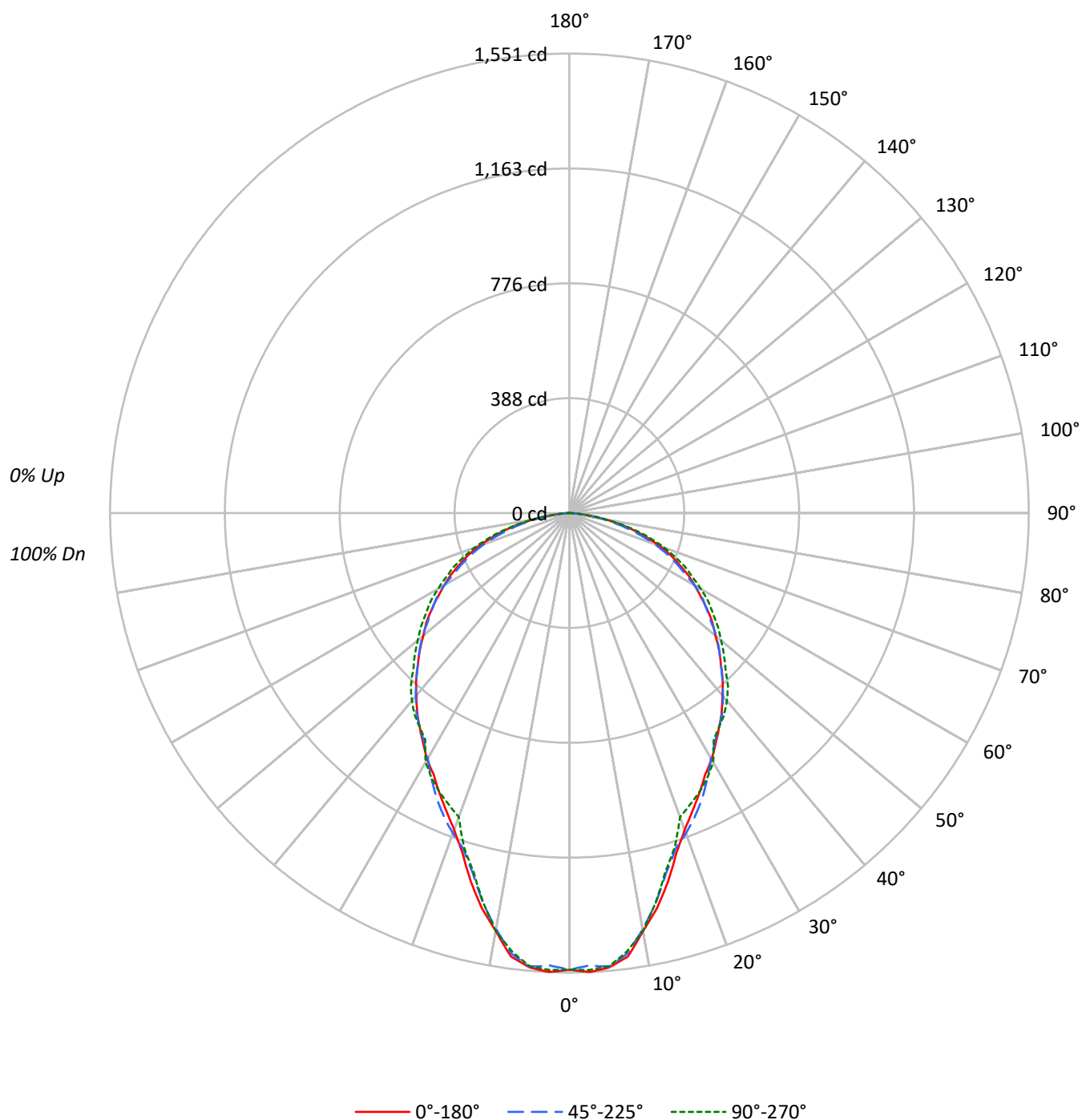
Lumens per Lamp: N/A
Luminaire Lumens: 3295.8 lumens
Efficiency: N/A
Efficacy: 49.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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
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°	4147	4147	4147
5°	4159	4152	4148
10°	3913	3896	3911
15°	3585	3507	3487
20°	3257	3293	3126
25°	3089	3151	3084
30°	2983	2971	3016
35°	2896	2896	2896
40°	2824	2835	2905
45°	2754	2751	2836
50°	2694	2714	2798
55°	2666	2654	2775
60°	2631	2627	2760
65°	2597	2516	2746
70°	2548	2402	2674
75°	2358	2133	2475
80°	1912	1739	1962
85°	1213	1090	1065



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	4.3
10°-20°	357.8	10.9
20°-30°	483.3	14.7
30°-40°	553.4	16.8
40°-50°	566.9	17.2
50°-60°	514.4	15.6
60°-70°	401.4	12.2
70°-80°	227.7	6.9
80°-90°	47.8	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°	984.3	29.9
0°-40°	1537.7	46.7
0°-60°	2618.9	79.5
0°-90°	3295.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3295.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1541	1541	1541	1541	1541	
5°	1540	1522	1537	1540	1536	144
15°	1287	1291	1259	1265	1252	360
25°	1040	1054	1061	1035	1039	480
35°	882	883	882	882	882	552
45°	724	729	723	752	745	560
55°	568	567	566	586	591	508
65°	408	399	395	414	431	404
75°	227	210	205	217	238	237
85°	39	35	35	33	34	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1541.1	1541.1	1541.1	1541.1	1541.1
2.5°	1550.7	1538.7	1528.3	1545.1	1543.5
5°	1539.5	1521.9	1537.1	1540.3	1535.5
7.5°	1509.8	1498.6	1499.4	1493.0	1492.2
10°	1432.1	1438.5	1425.7	1436.9	1431.3
12.5°	1365.6	1369.6	1347.2	1352.0	1345.5
15°	1287.0	1291.1	1259.0	1265.4	1251.8
17.5°	1201.3	1215.7	1189.3	1197.3	1182.9
20°	1137.2	1149.2	1150.0	1137.2	1091.5
22.5°	1086.7	1098.7	1108.3	1069.9	1065.1
25°	1040.2	1053.8	1061.1	1035.4	1038.6
27.5°	993.7	1009.0	1009.0	1014.6	1007.4
30°	960.1	966.5	956.1	976.9	970.5
32.5°	920.0	922.4	913.6	928.8	906.4
35°	881.5	883.1	881.5	882.3	881.5
37.5°	844.7	840.7	847.9	843.1	858.3
40°	803.8	803.8	807.0	815.0	827.0
42.5°	766.1	769.3	765.3	787.8	792.6
45°	723.7	729.3	722.9	752.5	745.3
47.5°	685.2	687.6	686.0	706.0	707.6
50°	643.5	646.7	648.3	666.0	668.4
52.5°	609.1	608.3	602.7	628.3	632.3
55°	568.2	567.4	565.8	585.8	591.4
57.5°	526.5	527.3	531.3	542.5	556.2
60°	488.9	484.8	488.1	501.7	512.9
62.5°	450.4	443.2	436.0	458.4	468.8
65°	407.9	399.1	395.1	413.5	431.2
67.5°	368.6	354.2	351.8	364.6	385.5
70°	323.8	306.1	305.3	314.9	339.8
72.5°	274.1	258.9	254.8	267.7	290.1
75°	226.8	210.0	205.2	217.2	238.0
77.5°	175.5	161.9	158.7	165.1	181.9
80°	123.4	115.4	112.2	114.6	126.6
82.5°	77.7	72.1	70.5	69.7	76.1
85°	39.3	35.3	35.3	32.9	34.5
87.5°	12.0	11.2	10.4	8.0	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)