

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: P486939

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1LO-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: P486939
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-24-4-INS-89BC-LD4-1LO-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

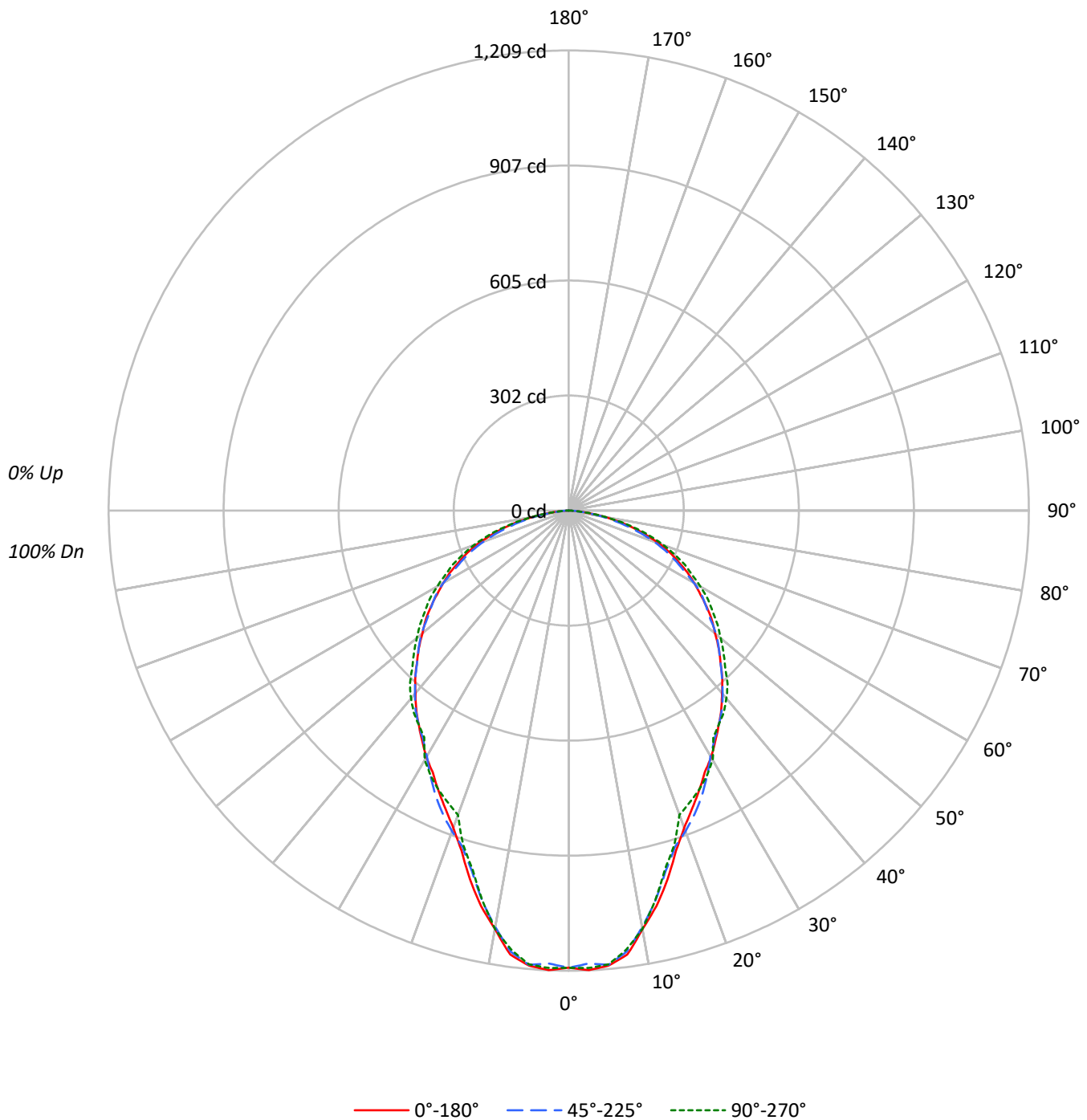
Lumens per Lamp: N/A
Luminaire Lumens: 2568.8 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P486939

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1LO-30-120-EDD

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°	1616	1616	1616
5°	1621	1618	1616
10°	1525	1518	1524
15°	1397	1367	1359
20°	1269	1283	1218
25°	1204	1228	1202
30°	1163	1158	1175
35°	1129	1129	1129
40°	1100	1105	1132
45°	1073	1072	1105
50°	1050	1058	1090
55°	1039	1034	1081
60°	1025	1024	1076
65°	1012	980	1070
70°	993	936	1042
75°	919	831	964
80°	745	677	765
85°	472	425	415



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	4.3
10°-20°	278.9	10.9
20°-30°	376.7	14.7
30°-40°	431.3	16.8
40°-50°	441.8	17.2
50°-60°	400.9	15.6
60°-70°	312.9	12.2
70°-80°	177.5	6.9
80°-90°	37.2	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°	767.1	29.9
0°-40°	1198.5	46.7
0°-60°	2041.2	79.5
0°-90°	2568.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2568.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1201	1201	1201	1201	1201	
5°	1200	1186	1198	1200	1197	112
15°	1003	1006	981	986	976	280
25°	811	821	827	807	810	374
35°	687	688	687	688	687	430
45°	564	568	563	586	581	436
55°	443	442	441	457	461	396
65°	318	311	308	322	336	315
75°	177	164	160	169	186	185
85°	31	28	28	26	27	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1201.1	1201.1	1201.1	1201.1	1201.1
2.5°	1208.6	1199.3	1191.2	1204.3	1203.0
5°	1199.9	1186.2	1198.0	1200.5	1196.8
7.5°	1176.8	1168.0	1168.7	1163.7	1163.0
10°	1116.2	1121.2	1111.2	1119.9	1115.6
12.5°	1064.4	1067.5	1050.0	1053.7	1048.7
15°	1003.1	1006.3	981.3	986.3	975.7
17.5°	936.3	947.6	926.9	933.2	921.9
20°	886.3	895.7	896.3	886.3	850.7
22.5°	847.0	856.4	863.9	833.9	830.1
25°	810.8	821.4	827.0	807.0	809.5
27.5°	774.5	786.4	786.4	790.8	785.2
30°	748.3	753.3	745.2	761.4	756.4
32.5°	717.1	718.9	712.1	723.9	706.4
35°	687.1	688.3	687.1	687.7	687.1
37.5°	658.4	655.2	660.9	657.1	669.0
40°	626.5	626.5	629.0	635.2	644.6
42.5°	597.1	599.6	596.5	614.0	617.8
45°	564.0	568.4	563.4	586.5	580.9
47.5°	534.1	535.9	534.7	550.3	551.5
50°	501.6	504.1	505.3	519.1	520.9
52.5°	474.7	474.1	469.7	489.7	492.8
55°	442.9	442.2	441.0	456.6	461.0
57.5°	410.4	411.0	414.1	422.9	433.5
60°	381.0	377.9	380.4	391.0	399.8
62.5°	351.0	345.4	339.8	357.3	365.4
65°	317.9	311.1	307.9	322.3	336.0
67.5°	287.3	276.1	274.2	284.2	300.4
70°	252.3	238.6	238.0	245.5	264.8
72.5°	213.6	201.8	198.6	208.6	226.1
75°	176.8	163.7	159.9	169.3	185.5
77.5°	136.8	126.2	123.7	128.7	141.8
80°	96.2	89.9	87.4	89.3	98.7
82.5°	60.6	56.2	55.0	54.3	59.3
85°	30.6	27.5	27.5	25.6	26.9
87.5°	9.4	8.7	8.1	6.2	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)