

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: P486948

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-27-120-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: P486948
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-LD4-1STD-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

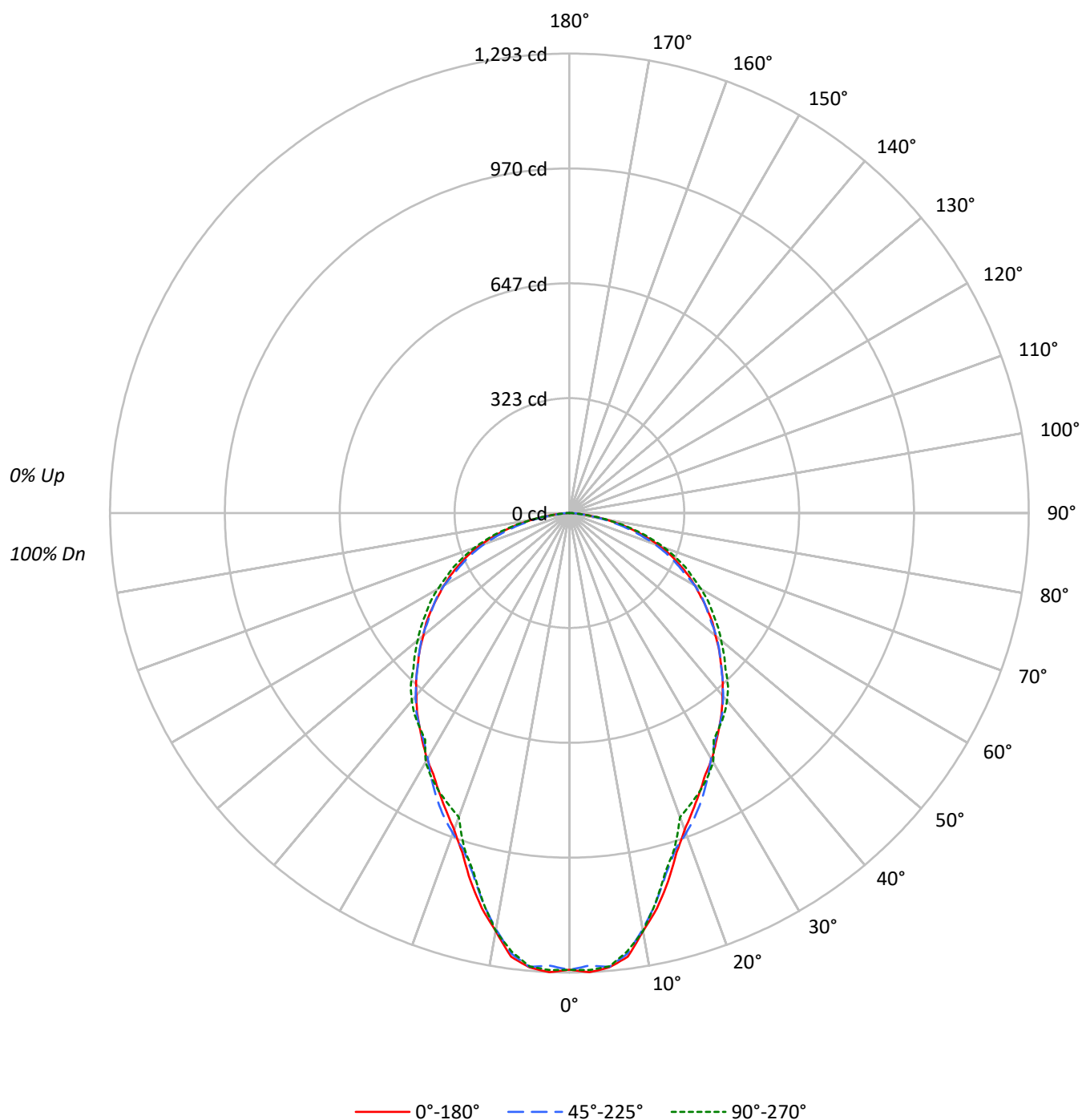
Lumens per Lamp: N/A
Luminaire Lumens: 2748.5 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	1729	1729	1729
5°	1734	1731	1729
10°	1632	1624	1631
15°	1495	1462	1454
20°	1358	1373	1303
25°	1288	1314	1286
30°	1244	1239	1257
35°	1208	1208	1208
40°	1177	1182	1211
45°	1148	1147	1183
50°	1123	1132	1167
55°	1111	1107	1157
60°	1097	1095	1151
65°	1083	1049	1145
70°	1062	1002	1115
75°	983	889	1032
80°	797	725	818
85°	505	454	443



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.4	4.3
10°-20°	298.4	10.9
20°-30°	403.0	14.7
30°-40°	461.5	16.8
40°-50°	472.7	17.2
50°-60°	429.0	15.6
60°-70°	334.8	12.2
70°-80°	189.9	6.9
80°-90°	39.9	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°	820.8	29.9
0°-40°	1282.3	46.7
0°-60°	2184.0	79.5
0°-90°	2748.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2748.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1284	1269	1282	1284	1280	120
15°	1073	1077	1050	1055	1044	300
25°	868	879	885	864	866	400
35°	735	736	735	736	735	461
45°	604	608	603	628	622	467
55°	474	473	472	488	493	423
65°	340	333	330	345	360	337
75°	189	175	171	181	198	198
85°	33	29	29	27	29	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1285.2	1285.2	1285.2	1285.2	1285.2
2.5°	1293.2	1283.2	1274.5	1288.5	1287.2
5°	1283.8	1269.1	1281.8	1284.5	1280.5
7.5°	1259.1	1249.8	1250.4	1245.1	1244.4
10°	1194.3	1199.6	1188.9	1198.3	1193.6
12.5°	1138.8	1142.2	1123.4	1127.5	1122.1
15°	1073.3	1076.7	1049.9	1055.3	1043.9
17.5°	1001.8	1013.8	991.8	998.5	986.4
20°	948.3	958.4	959.0	948.3	910.2
22.5°	906.2	916.3	924.3	892.2	888.2
25°	867.5	878.8	884.9	863.5	866.1
27.5°	828.7	841.4	841.4	846.1	840.1
30°	800.6	806.0	797.3	814.7	809.3
32.5°	767.2	769.2	761.9	774.6	755.9
35°	735.2	736.5	735.2	735.8	735.2
37.5°	704.4	701.1	707.1	703.1	715.8
40°	670.3	670.3	673.0	679.7	689.7
42.5°	638.9	641.6	638.2	657.0	661.0
45°	603.5	608.2	602.8	627.6	621.5
47.5°	571.4	573.4	572.1	588.8	590.1
50°	536.7	539.3	540.7	555.4	557.4
52.5°	507.9	507.3	502.6	524.0	527.3
55°	473.8	473.2	471.8	488.5	493.2
57.5°	439.1	439.8	443.1	452.5	463.8
60°	407.7	404.3	407.0	418.4	427.7
62.5°	375.6	369.6	363.6	382.3	391.0
65°	340.2	332.8	329.5	344.9	359.6
67.5°	307.4	295.4	293.4	304.1	321.5
70°	270.0	255.3	254.6	262.6	283.4
72.5°	228.6	215.9	212.5	223.2	241.9
75°	189.1	175.1	171.1	181.1	198.5
77.5°	146.4	135.0	132.3	137.7	151.7
80°	102.9	96.2	93.6	95.6	105.6
82.5°	64.8	60.1	58.8	58.1	63.5
85°	32.7	29.4	29.4	27.4	28.7
87.5°	10.0	9.4	8.7	6.7	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)