

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: P486955

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-40-120-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: P486955
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-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

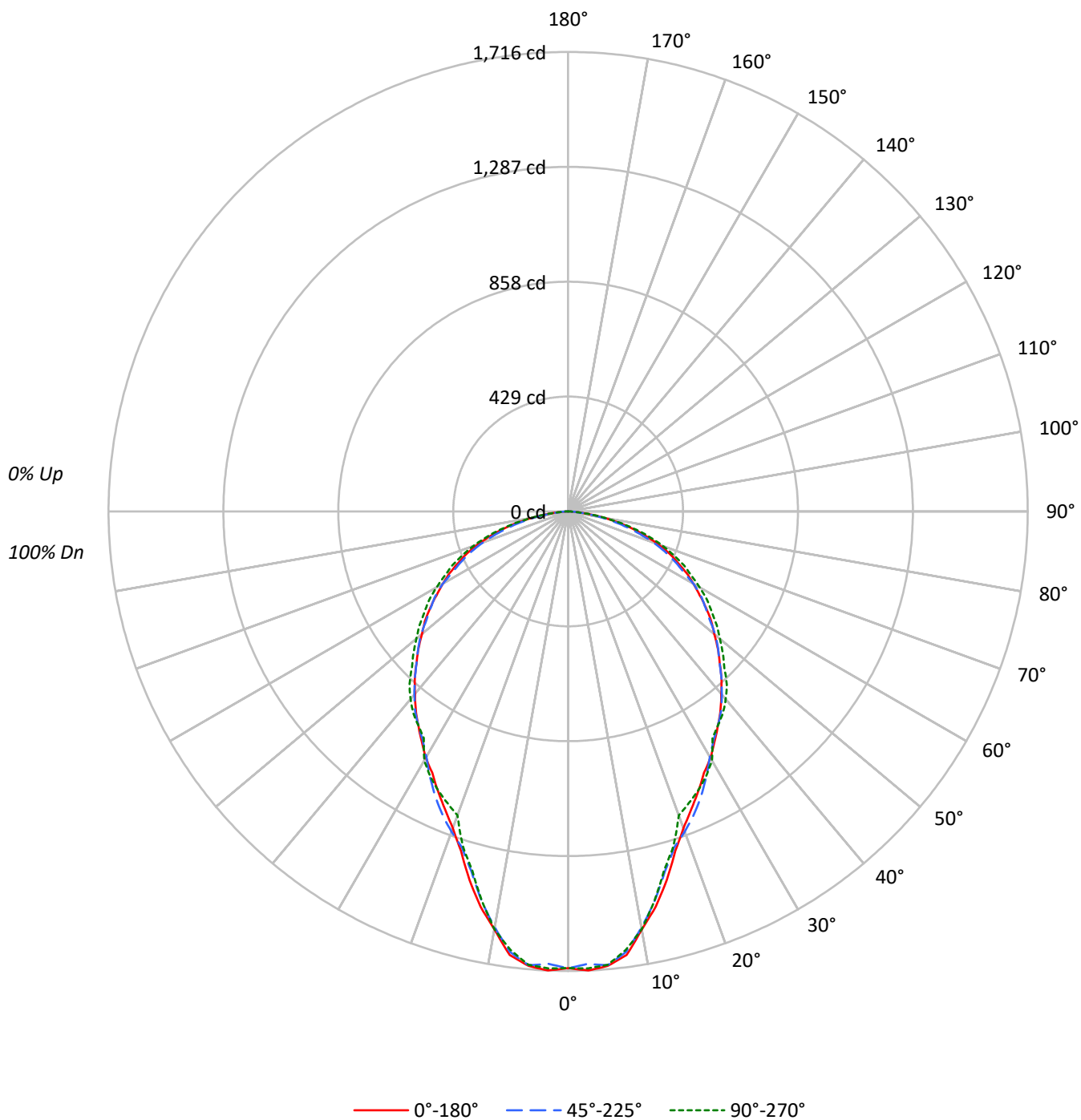
Lumens per Lamp: N/A
Luminaire Lumens: 3646.7 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	2294	2294	2294
5°	2301	2297	2295
10°	2165	2155	2164
15°	1984	1940	1929
20°	1802	1822	1729
25°	1709	1743	1706
30°	1650	1644	1668
35°	1602	1602	1602
40°	1562	1568	1607
45°	1524	1522	1569
50°	1490	1502	1548
55°	1475	1468	1535
60°	1456	1453	1527
65°	1437	1392	1519
70°	1409	1329	1479
75°	1304	1180	1369
80°	1058	962	1086
85°	670	602	588



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	4.3
10°-20°	395.9	10.9
20°-30°	534.7	14.7
30°-40°	612.3	16.8
40°-50°	627.2	17.2
50°-60°	569.1	15.6
60°-70°	444.2	12.2
70°-80°	251.9	6.9
80°-90°	52.9	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°	1089.0	29.9
0°-40°	1701.4	46.7
0°-60°	2897.7	79.5
0°-90°	3646.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3646.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1703	1684	1701	1704	1699	159
15°	1424	1428	1393	1400	1385	398
25°	1151	1166	1174	1146	1149	531
35°	975	977	975	976	975	611
45°	801	807	800	833	825	619
55°	629	628	626	648	654	562
65°	451	442	437	458	477	447
75°	251	232	227	240	263	263
85°	43	39	39	36	38	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.2	1705.2	1705.2	1705.2	1705.2
2.5°	1715.8	1702.5	1691.0	1709.6	1707.8
5°	1703.4	1683.9	1700.7	1704.3	1699.0
7.5°	1670.6	1658.2	1659.1	1652.0	1651.1
10°	1584.6	1591.7	1577.5	1589.9	1583.7
12.5°	1511.0	1515.4	1490.6	1495.9	1488.8
15°	1424.1	1428.5	1393.0	1400.1	1385.1
17.5°	1329.2	1345.2	1315.9	1324.8	1308.8
20°	1258.3	1271.6	1272.4	1258.3	1207.7
22.5°	1202.4	1215.7	1226.3	1183.8	1178.5
25°	1151.0	1166.0	1174.0	1145.6	1149.2
27.5°	1099.5	1116.4	1116.4	1122.6	1114.6
30°	1062.3	1069.4	1057.9	1080.9	1073.8
32.5°	1018.0	1020.6	1010.9	1027.7	1002.9
35°	975.4	977.2	975.4	976.3	975.4
37.5°	934.6	930.2	938.2	932.8	949.7
40°	889.4	889.4	892.9	901.8	915.1
42.5°	847.7	851.3	846.8	871.6	877.0
45°	800.7	806.9	799.8	832.6	824.7
47.5°	758.1	760.8	759.0	781.2	783.0
50°	712.0	715.6	717.4	736.9	739.5
52.5°	673.9	673.0	666.8	695.2	699.6
55°	628.7	627.8	626.0	648.2	654.4
57.5°	582.6	583.5	587.9	600.3	615.4
60°	540.9	536.5	540.0	555.1	567.5
62.5°	498.3	490.4	482.4	507.2	518.7
65°	451.3	441.6	437.2	457.5	477.1
67.5°	407.9	391.9	389.3	403.5	426.5
70°	358.2	338.7	337.8	348.5	376.0
72.5°	303.3	286.4	282.0	296.2	321.0
75°	250.9	232.3	227.0	240.3	263.4
77.5°	194.2	179.1	175.6	182.7	201.3
80°	136.6	127.7	124.1	126.8	140.1
82.5°	86.0	79.8	78.0	77.1	84.2
85°	43.4	39.0	39.0	36.4	38.1
87.5°	13.3	12.4	11.5	8.9	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)