

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P562425

Luminaire Tested: FSR-24-4-LD4-1STD-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562425
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-1STD-50-UNV-80-88-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3384.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

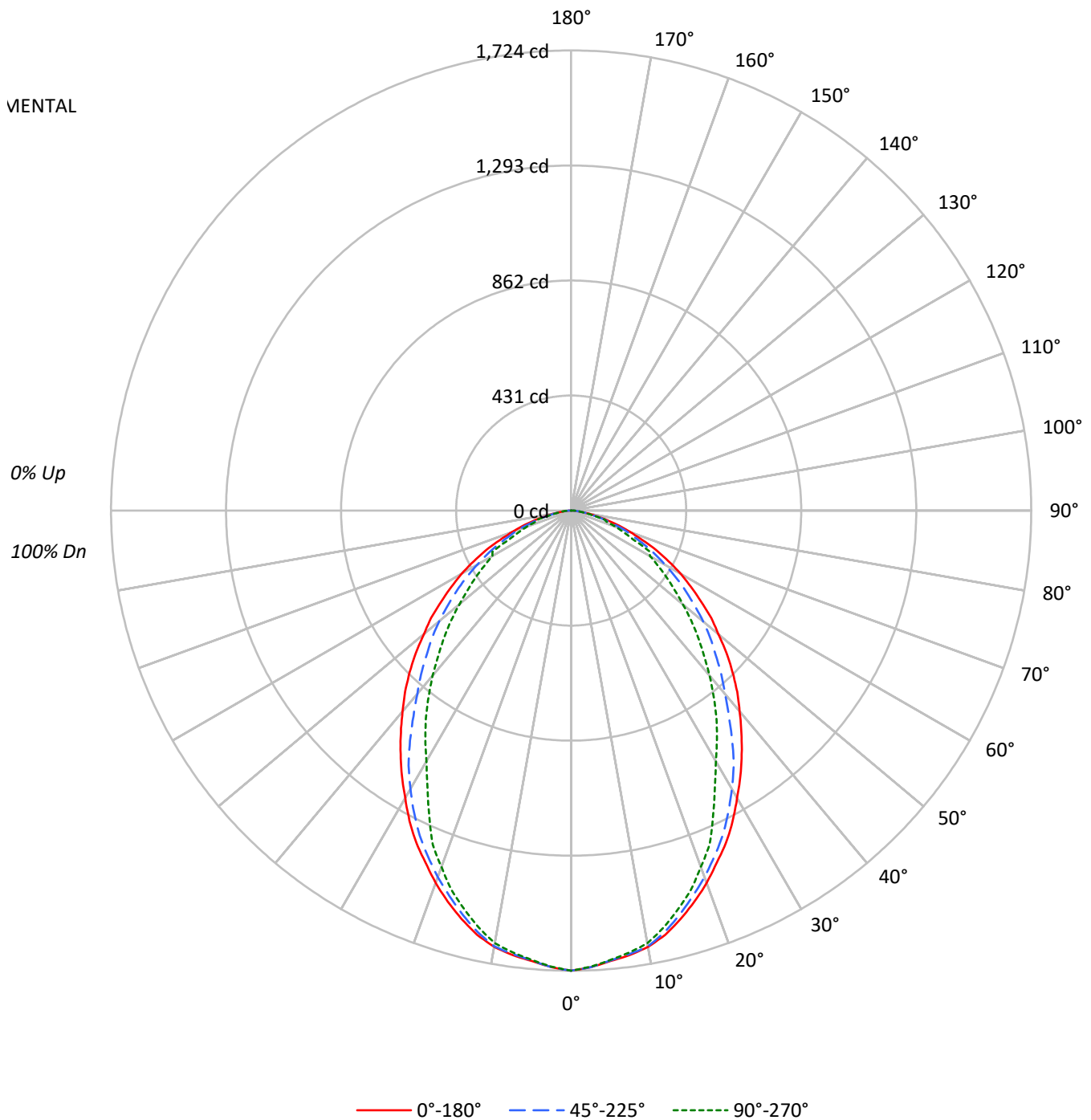
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2319	2319	2319
5°	2288	2285	2282
10°	2268	2265	2249
15°	2207	2185	2154
20°	2126	2091	2035
25°	2038	1994	1870
30°	1932	1870	1684
35°	1830	1728	1558
40°	1725	1575	1418
45°	1627	1456	1282
50°	1506	1352	1143
55°	1393	1225	1024
60°	1276	1094	917
65°	1123	958	812
70°	925	839	690
75°	736	643	673
80°	494	463	432
85°	307	369	431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1627 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.5	4.7
10°-20°	440.4	13.0
20°-30°	609.7	18.0
30°-40°	650.1	19.2
40°-50°	593.1	17.5
50°-60°	464.6	13.7
60°-70°	302.8	8.9
70°-80°	134.2	4.0
80°-90°	28.8	0.9
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°	1210.5	35.8
0°-40°	1860.5	55.0
0°-60°	2918.2	86.2
0°-90°	3384.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3384.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1724	1724	1724	1724	1724	
5°	1694	1692	1692	1690	1690	161
15°	1584	1584	1568	1552	1546	445
25°	1373	1365	1343	1295	1259	630
35°	1114	1106	1052	972	949	696
45°	855	837	765	702	674	659
55°	594	576	522	460	436	533
65°	353	333	301	307	255	348
75°	142	132	124	118	130	152
85°	20	22	24	26	28	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1723.8	1723.8	1723.8	1723.8	1723.8
2.5°	1711.8	1711.8	1711.8	1709.8	1709.8
5°	1693.9	1691.9	1691.9	1689.9	1689.9
7.5°	1679.9	1677.9	1675.9	1673.9	1670.0
10°	1660.0	1660.0	1658.0	1648.0	1646.0
12.5°	1628.1	1626.1	1618.1	1604.2	1600.2
15°	1584.3	1584.3	1568.3	1552.4	1546.4
17.5°	1536.4	1534.4	1514.5	1498.6	1490.6
20°	1484.6	1480.6	1460.7	1434.8	1420.9
22.5°	1426.8	1426.8	1402.9	1369.0	1355.1
25°	1373.0	1365.1	1343.1	1295.3	1259.4
27.5°	1311.3	1299.3	1275.4	1207.6	1165.8
30°	1243.5	1237.5	1203.6	1116.0	1084.1
32.5°	1179.7	1169.8	1133.9	1042.2	1016.3
35°	1114.0	1106.0	1052.2	972.5	948.6
37.5°	1048.2	1038.2	970.5	906.7	876.8
40°	982.4	970.5	896.8	839.0	807.1
42.5°	920.7	904.7	833.0	771.2	735.3
45°	854.9	837.0	765.2	701.5	673.6
47.5°	789.1	773.2	707.4	641.7	609.8
50°	719.4	705.4	645.7	579.9	546.0
52.5°	661.6	639.7	581.9	516.1	488.2
55°	593.9	575.9	522.1	460.3	436.4
57.5°	532.1	514.1	464.3	406.5	386.6
60°	474.3	448.4	406.5	356.7	340.8
62.5°	410.5	390.6	354.7	312.9	332.8
65°	352.7	332.8	300.9	306.9	255.1
67.5°	289.0	279.0	251.1	223.2	215.2
70°	235.1	223.2	213.2	183.3	175.4
72.5°	187.3	175.4	161.4	145.5	139.5
75°	141.5	131.5	123.6	117.6	129.5
77.5°	97.6	93.7	87.7	81.7	79.7
80°	63.8	61.8	59.8	57.8	55.8
82.5°	37.9	37.9	37.9	37.9	37.9
85°	19.9	21.9	23.9	25.9	27.9
87.5°	12.0	12.0	13.9	15.9	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)