

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: P562992

Luminaire Tested: FSR-24-4-LD4-2STD-50-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562992
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-LD4-2STD-50-UNV-80-84-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6974.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

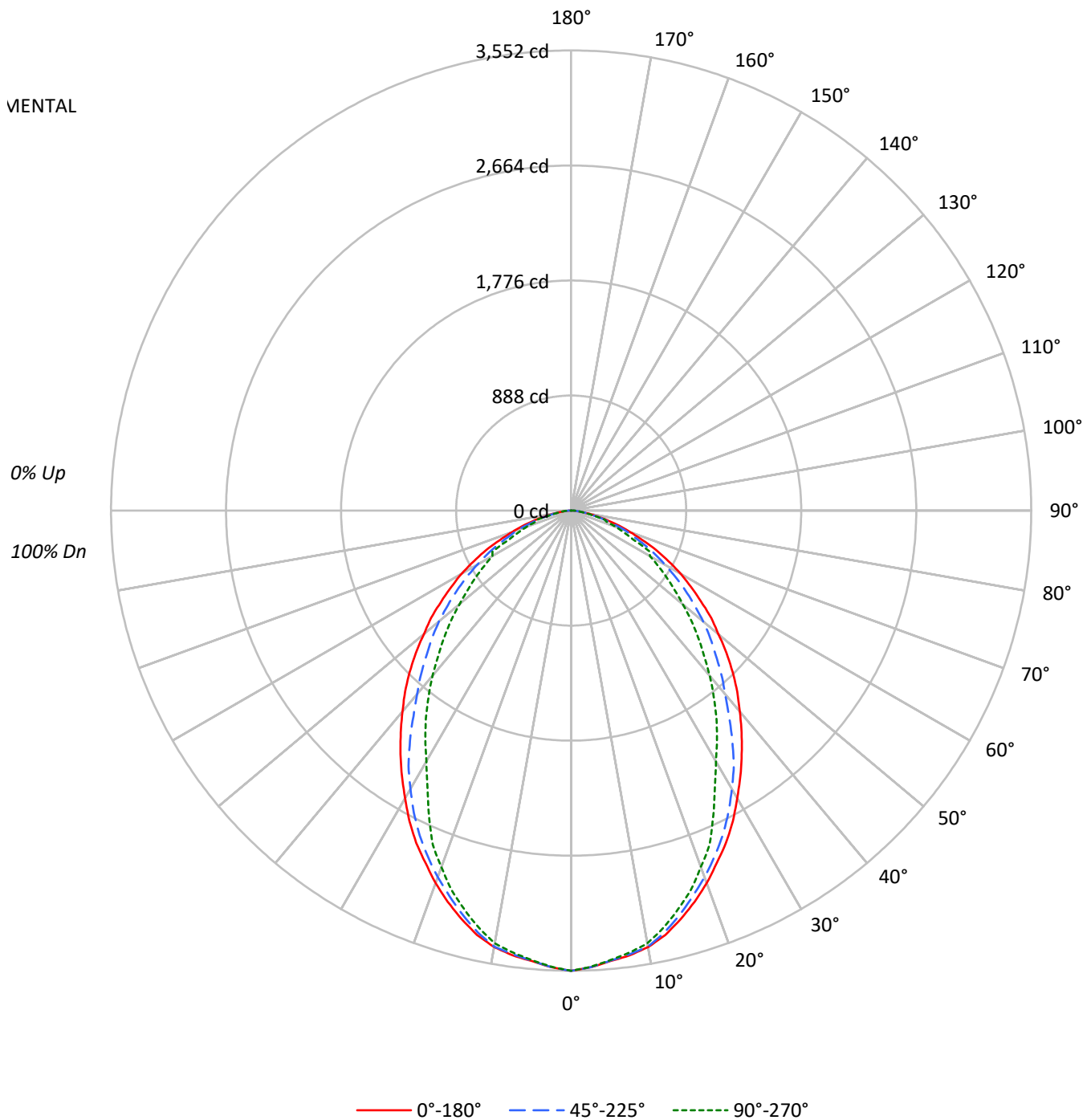
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4780	4780	4780
5°	4715	4709	4704
10°	4674	4668	4635
15°	4548	4502	4439
20°	4381	4310	4193
25°	4201	4109	3853
30°	3982	3854	3471
35°	3771	3562	3211
40°	3556	3246	2921
45°	3353	3001	2641
50°	3103	2785	2355
55°	2871	2524	2110
60°	2630	2255	1890
65°	2314	1974	1674
70°	1906	1729	1422
75°	1516	1324	1387
80°	1018	955	891
85°	634	761	888

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3353 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.7	4.7
10°-20°	907.5	13.0
20°-30°	1256.4	18.0
30°-40°	1339.7	19.2
40°-50°	1222.2	17.5
50°-60°	957.5	13.7
60°-70°	624.1	8.9
70°-80°	276.5	4.0
80°-90°	59.4	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°	2494.7	35.8
0°-40°	3834.4	55.0
0°-60°	6014.1	86.2
0°-90°	6974.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6974.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3552	3552	3552	3552	3552	
5°	3491	3487	3487	3483	3483	331
15°	3265	3265	3232	3199	3187	918
25°	2830	2813	2768	2670	2596	1299
35°	2296	2279	2168	2004	1955	1435
45°	1762	1725	1577	1446	1388	1357
55°	1224	1187	1076	949	899	1098
65°	727	686	620	632	526	716
75°	292	271	255	242	267	312
85°	41	45	49	53	58	57
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3552.5	3552.5	3552.5	3552.5	3552.5
2.5°	3527.8	3527.8	3527.8	3523.7	3523.7
5°	3490.9	3486.8	3486.8	3482.6	3482.6
7.5°	3462.1	3458.0	3453.9	3449.8	3441.6
10°	3421.0	3421.0	3416.9	3396.4	3392.3
12.5°	3355.3	3351.2	3334.8	3306.0	3297.8
15°	3265.0	3265.0	3232.1	3199.3	3186.9
17.5°	3166.4	3162.3	3121.2	3088.4	3072.0
20°	3059.6	3051.4	3010.4	2957.0	2928.2
22.5°	2940.5	2940.5	2891.3	2821.4	2792.7
25°	2829.6	2813.2	2768.0	2669.5	2595.6
27.5°	2702.3	2677.7	2628.4	2488.8	2402.5
30°	2562.7	2550.4	2480.6	2299.9	2234.1
32.5°	2431.3	2410.7	2336.8	2147.9	2094.5
35°	2295.8	2279.3	2168.4	2004.2	1954.9
37.5°	2160.2	2139.7	2000.1	1868.6	1807.0
40°	2024.7	2000.1	1848.1	1729.0	1663.3
42.5°	1897.4	1864.5	1716.7	1589.4	1515.4
45°	1761.9	1724.9	1577.0	1445.6	1388.1
47.5°	1626.3	1593.5	1457.9	1322.4	1256.7
50°	1482.6	1453.8	1330.6	1195.1	1125.3
52.5°	1363.5	1318.3	1199.2	1063.7	1006.2
55°	1223.9	1186.9	1076.0	948.7	899.4
57.5°	1096.5	1059.6	956.9	837.8	796.7
60°	977.4	924.1	837.8	735.1	702.3
62.5°	846.0	805.0	731.0	644.8	685.9
65°	726.9	685.9	620.1	632.5	525.7
67.5°	595.5	575.0	517.5	460.0	443.5
70°	484.6	460.0	439.4	377.8	361.4
72.5°	386.0	361.4	332.7	299.8	287.5
75°	291.6	271.1	254.6	242.3	266.9
77.5°	201.2	193.0	180.7	168.4	164.3
80°	131.4	127.3	123.2	119.1	115.0
82.5°	78.0	78.0	78.0	78.0	78.0
85°	41.1	45.2	49.3	53.4	57.5
87.5°	24.6	24.6	28.7	32.9	37.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)