

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: P562869

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-80-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562869
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-35-UNV-80-86-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7563.0 lumens
Efficiency: N/A
Efficacy: 113.6 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

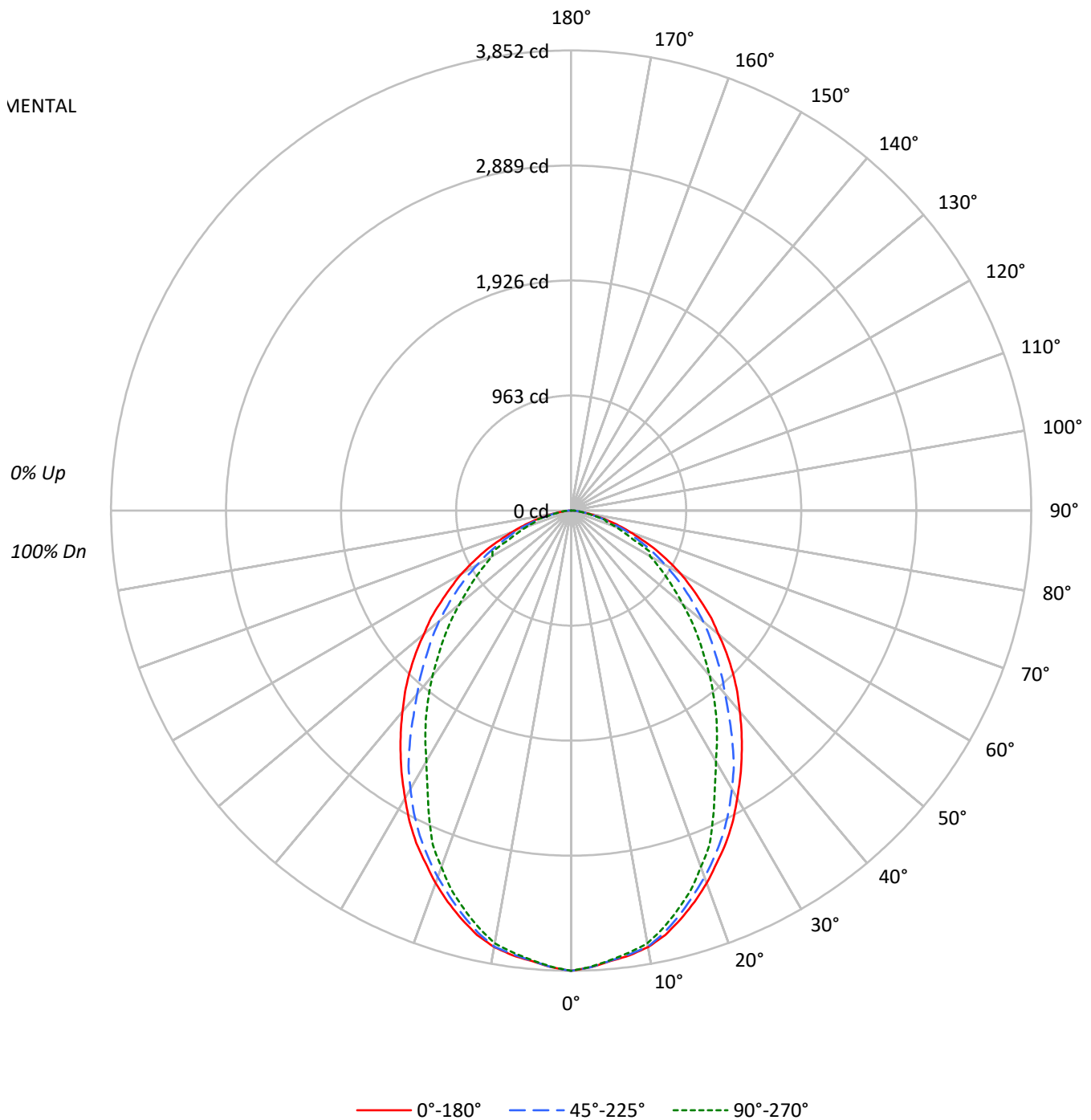
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													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°	5183	5183	5183
5°	5113	5107	5101
10°	5069	5063	5026
15°	4932	4882	4814
20°	4751	4674	4547
25°	4556	4456	4179
30°	4318	4179	3764
35°	4089	3863	3482
40°	3857	3520	3168
45°	3636	3254	2864
50°	3365	3021	2554
55°	3113	2737	2288
60°	2852	2445	2049
65°	2510	2141	1815
70°	2067	1875	1542
75°	1644	1435	1505
80°	1104	1035	966
85°	687	824	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3636 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.6	4.7
10°-20°	984.2	13.0
20°-30°	1362.5	18.0
30°-40°	1452.9	19.2
40°-50°	1325.4	17.5
50°-60°	1038.4	13.7
60°-70°	676.8	8.9
70°-80°	299.8	4.0
80°-90°	64.4	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°	2705.3	35.8
0°-40°	4158.2	55.0
0°-60°	6522.0	86.2
0°-90°	7563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3852	3852	3852	3852	3852	
5°	3786	3781	3781	3777	3777	359
15°	3541	3541	3505	3470	3456	995
25°	3069	3051	3002	2895	2815	1409
35°	2490	2472	2352	2173	2120	1556
45°	1911	1871	1710	1568	1505	1472
55°	1327	1287	1167	1029	975	1190
65°	788	744	672	686	570	777
75°	316	294	276	263	290	339
85°	44	49	53	58	62	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3852.5	3852.5	3852.5	3852.5	3852.5
2.5°	3825.8	3825.8	3825.8	3821.3	3821.3
5°	3785.7	3781.2	3781.2	3776.8	3776.8
7.5°	3754.5	3750.1	3745.6	3741.1	3732.2
10°	3710.0	3710.0	3705.5	3683.2	3678.8
12.5°	3638.7	3634.3	3616.4	3585.3	3576.4
15°	3540.7	3540.7	3505.1	3469.5	3456.1
17.5°	3433.8	3429.4	3384.8	3349.2	3331.4
20°	3318.0	3309.1	3264.6	3206.7	3175.5
22.5°	3188.9	3188.9	3135.4	3059.7	3028.5
25°	3068.6	3050.8	3001.8	2894.9	2814.8
27.5°	2930.6	2903.8	2850.4	2699.0	2605.4
30°	2779.1	2765.8	2690.1	2494.1	2422.8
32.5°	2636.6	2614.3	2534.2	2329.3	2271.4
35°	2489.6	2471.8	2351.6	2173.4	2120.0
37.5°	2342.7	2320.4	2169.0	2026.5	1959.6
40°	2195.7	2169.0	2004.2	1875.0	1803.8
42.5°	2057.6	2022.0	1861.7	1723.6	1643.4
45°	1910.7	1870.6	1710.2	1567.7	1505.4
47.5°	1763.7	1728.1	1581.1	1434.1	1362.8
50°	1607.8	1576.6	1443.0	1296.0	1220.3
52.5°	1478.6	1429.7	1300.5	1153.5	1091.2
55°	1327.2	1287.1	1166.9	1028.8	975.4
57.5°	1189.2	1149.1	1037.7	908.6	864.0
60°	1060.0	1002.1	908.6	797.2	761.6
62.5°	917.5	872.9	792.8	699.2	743.8
65°	788.3	743.8	672.5	685.9	570.1
67.5°	645.8	623.5	561.2	498.8	481.0
70°	525.5	498.8	476.6	409.7	391.9
72.5°	418.7	391.9	360.8	325.1	311.8
75°	316.2	293.9	276.1	262.8	289.5
77.5°	218.2	209.3	196.0	182.6	178.1
80°	142.5	138.1	133.6	129.2	124.7
82.5°	84.6	84.6	84.6	84.6	84.6
85°	44.5	49.0	53.4	57.9	62.4
87.5°	26.7	26.7	31.2	35.6	40.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)