

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: P562927

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-93-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562927
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-93-97-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7474.0 lumens
Efficiency: N/A
Efficacy: 112.2 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

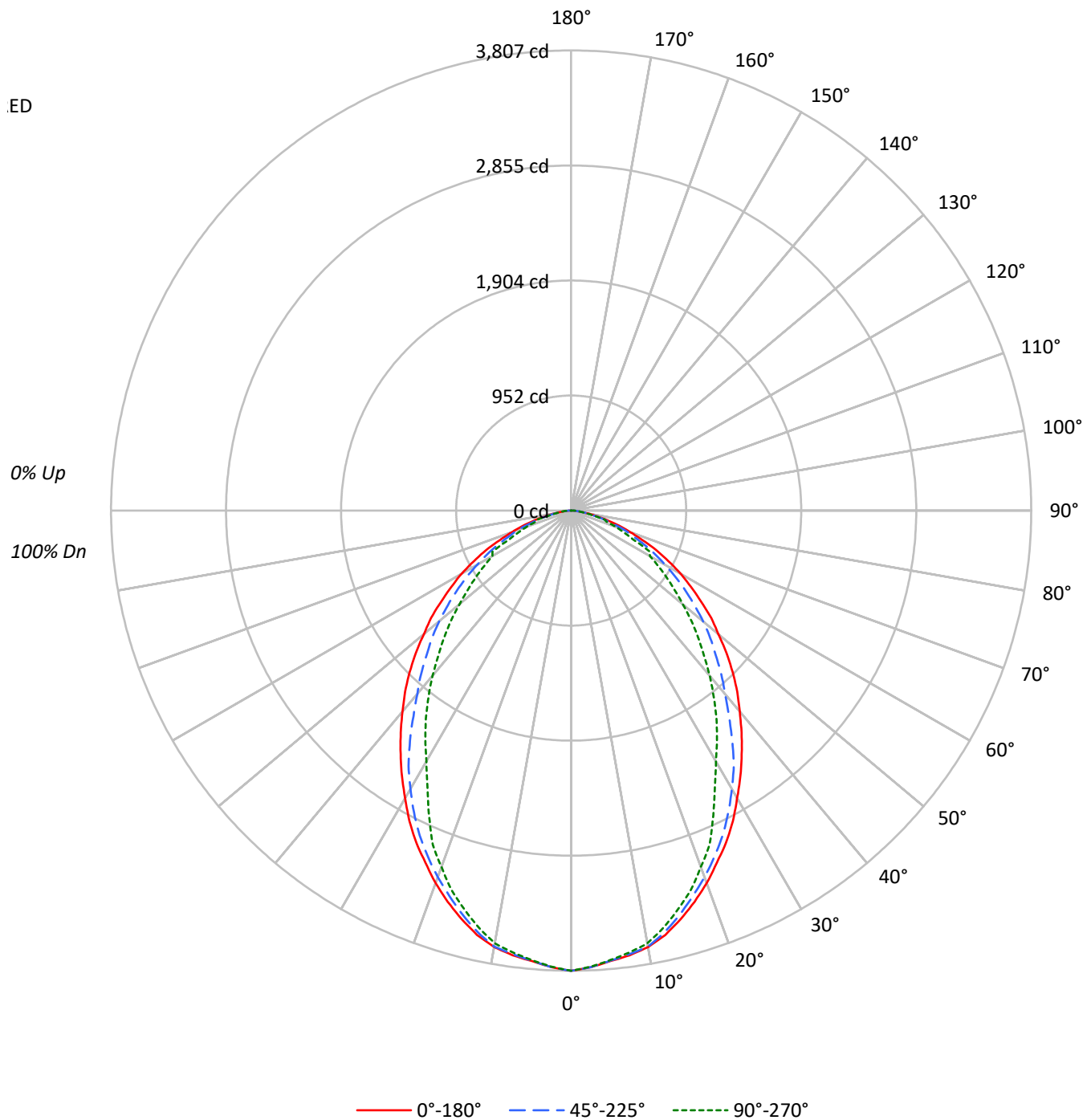
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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				
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°	5123	5123	5123
5°	5053	5047	5041
10°	5009	5003	4967
15°	4874	4825	4757
20°	4695	4619	4493
25°	4502	4404	4130
30°	4267	4130	3720
35°	4041	3817	3441
40°	3811	3479	3131
45°	3593	3216	2831
50°	3326	2985	2524
55°	3077	2705	2261
60°	2819	2416	2025
65°	2480	2116	1794
70°	2043	1852	1524
75°	1625	1419	1487
80°	1091	1023	955
85°	679	815	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3593 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.4	4.7
10°-20°	972.6	13.0
20°-30°	1346.5	18.0
30°-40°	1435.8	19.2
40°-50°	1309.8	17.5
50°-60°	1026.2	13.7
60°-70°	668.8	8.9
70°-80°	296.3	4.0
80°-90°	63.6	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°	2673.5	35.8
0°-40°	4109.3	55.0
0°-60°	6445.3	86.2
0°-90°	7474.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7474.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3807	3807	3807	3807	3807	
5°	3741	3737	3737	3732	3732	355
15°	3499	3499	3464	3429	3415	984
25°	3032	3015	2966	2861	2782	1392
35°	2460	2443	2324	2148	2095	1538
45°	1888	1849	1690	1549	1488	1454
55°	1312	1272	1153	1017	964	1176
65°	779	735	665	678	563	768
75°	312	290	273	260	286	335
85°	44	48	53	57	62	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3807.2	3807.2	3807.2	3807.2	3807.2
2.5°	3780.7	3780.7	3780.7	3776.3	3776.3
5°	3741.1	3736.7	3736.7	3732.3	3732.3
7.5°	3710.3	3705.9	3701.5	3697.1	3688.3
10°	3666.3	3666.3	3661.9	3639.9	3635.5
12.5°	3595.9	3591.5	3573.9	3543.1	3534.3
15°	3499.1	3499.1	3463.9	3428.6	3415.4
17.5°	3393.4	3389.0	3345.0	3309.8	3292.2
20°	3279.0	3270.2	3226.2	3169.0	3138.2
22.5°	3151.4	3151.4	3098.5	3023.7	2992.9
25°	3032.5	3014.9	2966.5	2860.9	2781.6
27.5°	2896.1	2869.7	2816.9	2667.2	2574.8
30°	2746.4	2733.2	2658.4	2464.7	2394.3
32.5°	2605.6	2583.6	2504.4	2301.9	2244.7
35°	2460.3	2442.7	2323.9	2147.9	2095.0
37.5°	2315.1	2293.1	2143.5	2002.6	1936.6
40°	2169.9	2143.5	1980.6	1853.0	1782.5
42.5°	2033.4	1998.2	1839.8	1703.3	1624.1
45°	1888.2	1848.6	1690.1	1549.3	1487.7
47.5°	1742.9	1707.7	1562.5	1417.2	1346.8
50°	1588.9	1558.1	1426.0	1280.8	1206.0
52.5°	1461.2	1412.8	1285.2	1139.9	1078.3
55°	1311.6	1272.0	1153.2	1016.7	963.9
57.5°	1175.2	1135.5	1025.5	897.9	853.9
60°	1047.5	990.3	897.9	787.8	752.6
62.5°	906.7	862.7	783.4	691.0	735.0
65°	779.0	735.0	664.6	677.8	563.4
67.5°	638.2	616.2	554.6	492.9	475.3
70°	519.4	492.9	470.9	404.9	387.3
72.5°	413.7	387.3	356.5	321.3	308.1
75°	312.5	290.5	272.9	259.7	286.1
77.5°	215.7	206.9	193.7	180.5	176.1
80°	140.8	136.4	132.0	127.6	123.2
82.5°	83.6	83.6	83.6	83.6	83.6
85°	44.0	48.4	52.8	57.2	61.6
87.5°	26.4	26.4	30.8	35.2	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)