

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: P561785

Luminaire Tested: FSR-12-4-LD4-2STD-40-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561785
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-12-4-LD4-2STD-40-UNV-80-88-EDD
Description: 1X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5665.0 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

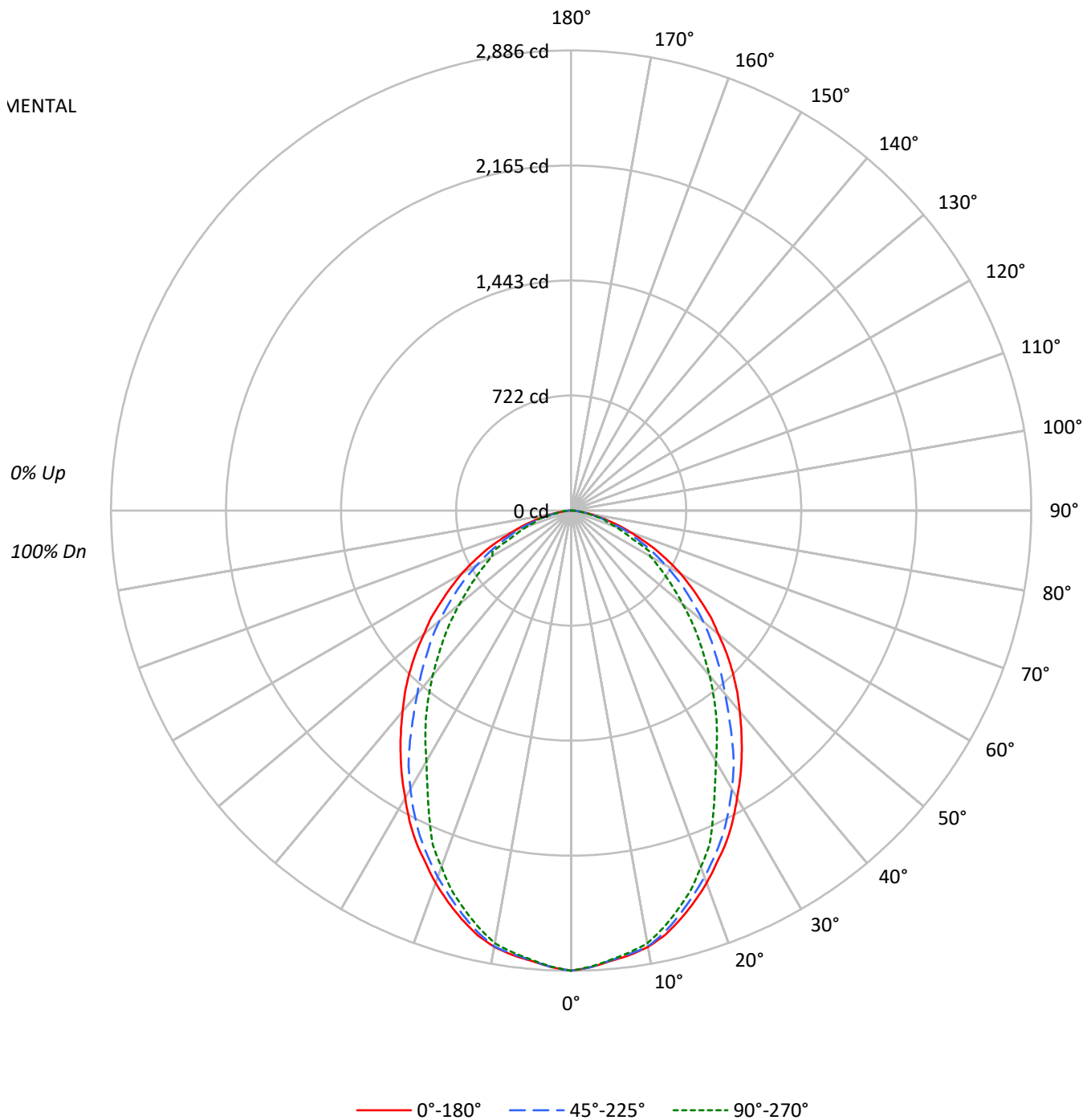
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7765	7765	7765
5°	7660	7651	7642
10°	7593	7584	7530
15°	7389	7314	7212
20°	7117	7003	6812
25°	6825	6676	6260
30°	6468	6261	5639
35°	6126	5786	5217
40°	5778	5273	4746
45°	5447	4875	4291
50°	5042	4525	3827
55°	4664	4100	3428
60°	4273	3663	3070
65°	3760	3207	2719
70°	3098	2809	2310
75°	2463	2150	2254
80°	1655	1551	1447
85°	1031	1235	1442

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5447 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.6	4.7
10°-20°	737.2	13.0
20°-30°	1020.6	18.0
30°-40°	1088.3	19.2
40°-50°	992.8	17.5
50°-60°	777.8	13.7
60°-70°	506.9	8.9
70°-80°	224.6	4.0
80°-90°	48.2	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°	2026.4	35.8
0°-40°	3114.7	55.0
0°-60°	4885.3	86.2
0°-90°	5665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2886	2886	2886	2886	2886	
5°	2836	2832	2832	2829	2829	269
15°	2652	2652	2626	2599	2589	746
25°	2298	2285	2248	2168	2108	1055
35°	1865	1852	1761	1628	1588	1166
45°	1431	1401	1281	1174	1128	1102
55°	994	964	874	771	731	892
65°	590	557	504	514	427	582
75°	237	220	207	197	217	254
85°	33	37	40	43	47	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2885.7	2885.7	2885.7	2885.7	2885.7
2.5°	2865.7	2865.7	2865.7	2862.3	2862.3
5°	2835.6	2832.3	2832.3	2829.0	2829.0
7.5°	2812.3	2808.9	2805.6	2802.3	2795.6
10°	2778.9	2778.9	2775.6	2758.9	2755.6
12.5°	2725.5	2722.2	2708.9	2685.5	2678.8
15°	2652.2	2652.2	2625.5	2598.8	2588.8
17.5°	2572.1	2568.8	2535.4	2508.7	2495.4
20°	2485.4	2478.7	2445.3	2401.9	2378.6
22.5°	2388.6	2388.6	2348.6	2291.9	2268.5
25°	2298.5	2285.2	2248.5	2168.4	2108.4
27.5°	2195.1	2175.1	2135.1	2021.6	1951.6
30°	2081.7	2071.7	2015.0	1868.2	1814.8
32.5°	1974.9	1958.3	1898.2	1744.7	1701.4
35°	1864.8	1851.5	1761.4	1628.0	1588.0
37.5°	1754.8	1738.1	1624.7	1517.9	1467.9
40°	1644.7	1624.7	1501.2	1404.5	1351.1
42.5°	1541.3	1514.6	1394.5	1291.0	1231.0
45°	1431.2	1401.1	1281.0	1174.3	1127.6
47.5°	1321.1	1294.4	1184.3	1074.2	1020.8
50°	1204.3	1181.0	1080.9	970.8	914.1
52.5°	1107.6	1070.9	974.1	864.0	817.3
55°	994.1	964.1	874.0	770.6	730.6
57.5°	890.7	860.7	777.3	680.6	647.2
60°	794.0	750.6	680.6	597.2	570.5
62.5°	687.2	653.9	593.8	523.8	557.1
65°	590.5	557.1	503.7	513.8	427.0
67.5°	483.7	467.0	420.3	373.6	360.3
70°	393.7	373.6	357.0	306.9	293.6
72.5°	313.6	293.6	270.2	243.5	233.5
75°	236.9	220.2	206.8	196.8	216.8
77.5°	163.5	156.8	146.8	136.8	133.4
80°	106.8	103.4	100.1	96.7	93.4
82.5°	63.4	63.4	63.4	63.4	63.4
85°	33.4	36.7	40.0	43.4	46.7
87.5°	20.0	20.0	23.4	26.7	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)