

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: P560604

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560604
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-12-2-LD4-2STD-35-UNV-82-96-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2353.0 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

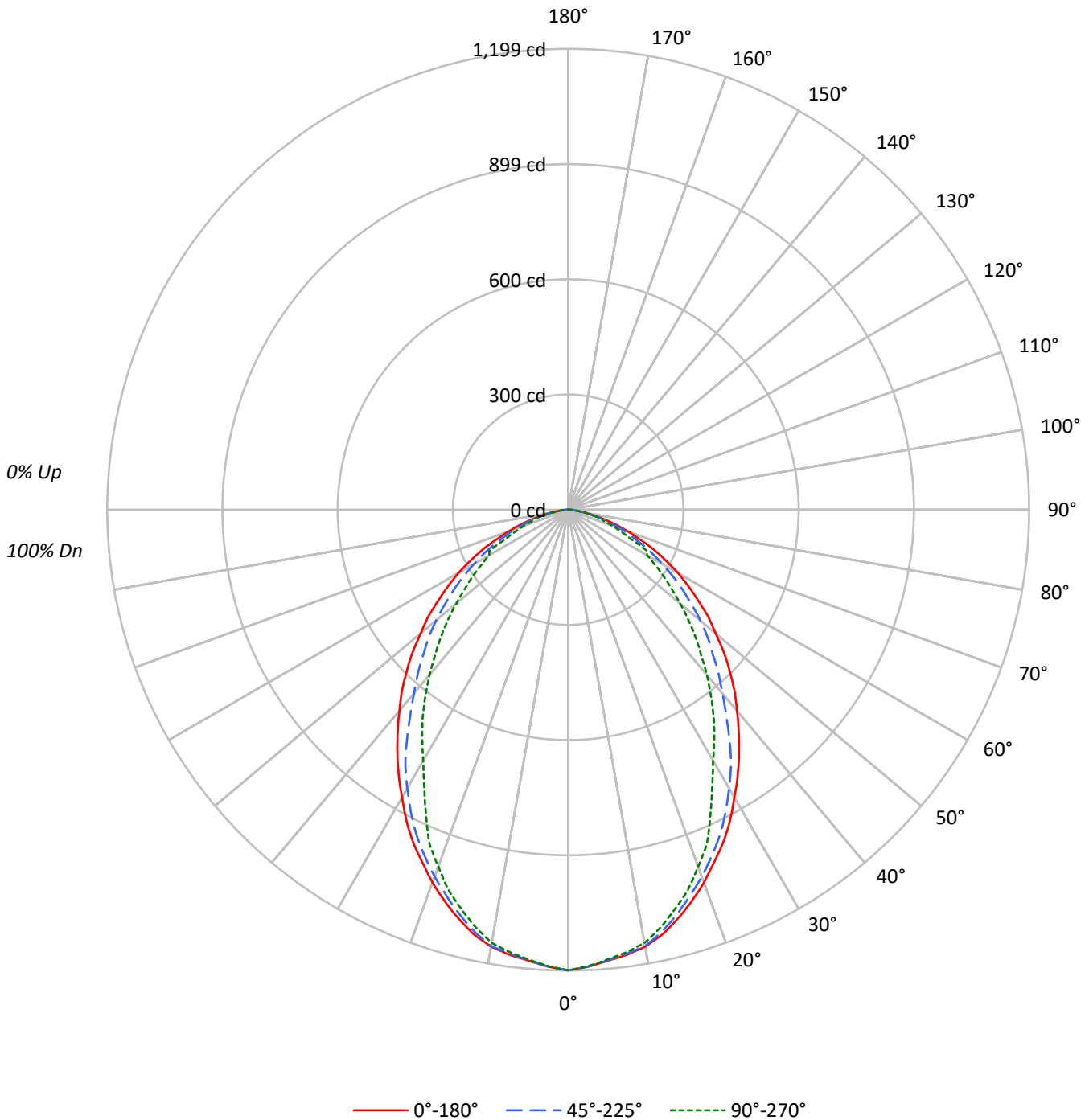
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	6451	6451	6451
5°	6363	6356	6348
10°	6308	6301	6255
15°	6138	6076	5991
20°	5912	5817	5659
25°	5669	5546	5200
30°	5373	5201	4685
35°	5089	4807	4334
40°	4799	4380	3943
45°	4524	4050	3564
50°	4188	3759	3179
55°	3874	3406	2848
60°	3550	3043	2550
65°	3124	2664	2259
70°	2573	2334	1918
75°	2046	1786	1874
80°	1373	1289	1203
85°	858	1025	1198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4524 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	4.7
10°-20°	306.2	13.0
20°-30°	423.9	18.0
30°-40°	452.0	19.2
40°-50°	412.4	17.5
50°-60°	323.1	13.7
60°-70°	210.6	8.9
70°-80°	93.3	4.0
80°-90°	20.0	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°	841.7	35.8
0°-40°	1293.7	55.0
0°-60°	2029.1	86.2
0°-90°	2353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1199	1199	1199	1199	1199	
5°	1178	1176	1176	1175	1175	112
15°	1102	1102	1090	1079	1075	310
25°	955	949	934	901	876	438
35°	775	769	732	676	660	484
45°	594	582	532	488	468	458
55°	413	400	363	320	304	370
65°	245	231	209	213	177	242
75°	98	92	86	82	90	105
85°	14	15	17	18	19	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.6	1198.6	1198.6	1198.6	1198.6
2.5°	1190.3	1190.3	1190.3	1188.9	1188.9
5°	1177.8	1176.4	1176.4	1175.0	1175.0
7.5°	1168.1	1166.7	1165.3	1163.9	1161.2
10°	1154.2	1154.2	1152.9	1145.9	1144.5
12.5°	1132.1	1130.7	1125.1	1115.4	1112.7
15°	1101.6	1101.6	1090.5	1079.4	1075.3
17.5°	1068.3	1067.0	1053.1	1042.0	1036.5
20°	1032.3	1029.5	1015.7	997.7	988.0
22.5°	992.1	992.1	975.5	951.9	942.2
25°	954.7	949.2	933.9	900.7	875.7
27.5°	911.8	903.4	886.8	839.7	810.6
30°	864.6	860.5	836.9	776.0	753.8
32.5°	820.3	813.4	788.4	724.7	706.7
35°	774.6	769.0	731.6	676.2	659.6
37.5°	728.9	721.9	674.8	630.5	609.7
40°	683.1	674.8	623.5	583.4	561.2
42.5°	640.2	629.1	579.2	536.2	511.3
45°	594.4	582.0	532.1	487.7	468.3
47.5°	548.7	537.6	491.9	446.2	424.0
50°	500.2	490.5	449.0	403.2	379.7
52.5°	460.0	444.8	404.6	358.9	339.5
55°	412.9	400.5	363.0	320.1	303.5
57.5°	370.0	357.5	322.9	282.7	268.8
60°	329.8	311.8	282.7	248.0	236.9
62.5°	285.4	271.6	246.6	217.5	231.4
65°	245.3	231.4	209.2	213.4	177.4
67.5°	200.9	194.0	174.6	155.2	149.7
70°	163.5	155.2	148.3	127.5	121.9
72.5°	130.3	121.9	112.2	101.2	97.0
75°	98.4	91.5	85.9	81.8	90.1
77.5°	67.9	65.1	61.0	56.8	55.4
80°	44.3	43.0	41.6	40.2	38.8
82.5°	26.3	26.3	26.3	26.3	26.3
85°	13.9	15.2	16.6	18.0	19.4
87.5°	8.3	8.3	9.7	11.1	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)