

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: P559643

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559643
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-LD4-1HI-35-UNV-82-94-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1744.0 lumens
Efficiency: N/A
Efficacy: 80.7 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

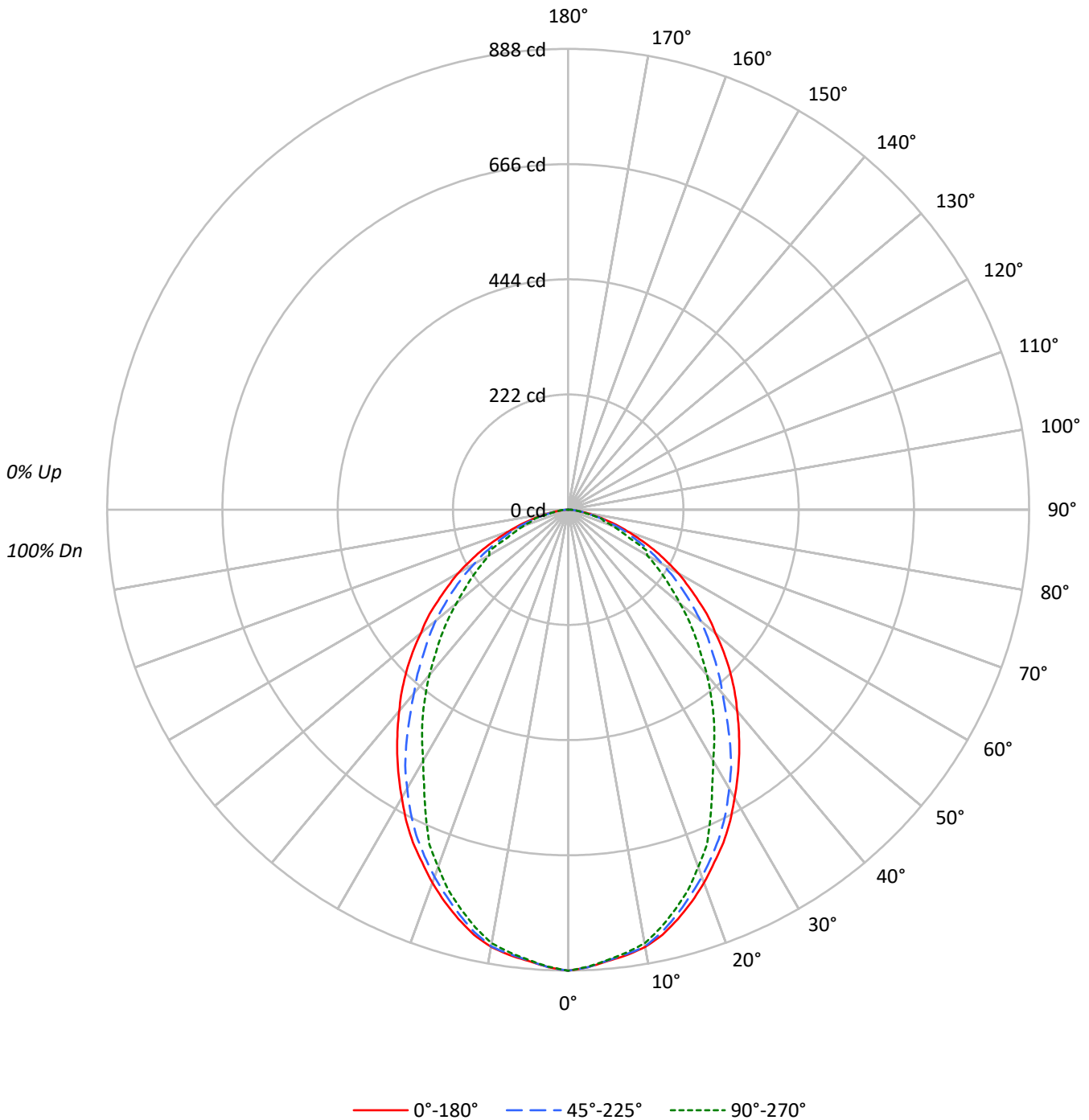
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4781	4781	4781
5°	4716	4710	4705
10°	4675	4670	4636
15°	4549	4504	4441
20°	4382	4312	4194
25°	4202	4111	3855
30°	3983	3855	3472
35°	3772	3563	3212
40°	3557	3247	2922
45°	3354	3002	2642
50°	3105	2786	2356
55°	2872	2525	2110
60°	2631	2255	1890
65°	2315	1975	1675
70°	1907	1729	1423
75°	1516	1325	1389
80°	1020	955	893
85°	636	760	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3354 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.7	4.7
10°-20°	226.9	13.0
20°-30°	314.2	18.0
30°-40°	335.0	19.2
40°-50°	305.7	17.5
50°-60°	239.4	13.7
60°-70°	156.1	8.9
70°-80°	69.2	4.0
80°-90°	14.8	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°	623.8	35.8
0°-40°	958.9	55.0
0°-60°	1504.0	86.2
0°-90°	1744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1744.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	888	888	888	888	888	
5°	873	872	872	871	871	83
15°	816	816	808	800	797	230
25°	708	704	692	668	649	325
35°	574	570	542	501	489	359
45°	441	431	394	362	347	339
55°	306	297	269	237	225	275
65°	182	172	155	158	132	179
75°	73	68	64	61	67	78
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	888.4	888.4	888.4	888.4	888.4
2.5°	882.2	882.2	882.2	881.2	881.2
5°	873.0	871.9	871.9	870.9	870.9
7.5°	865.8	864.7	863.7	862.7	860.6
10°	855.5	855.5	854.5	849.3	848.3
12.5°	839.1	838.0	833.9	826.7	824.7
15°	816.5	816.5	808.3	800.0	797.0
17.5°	791.8	790.8	780.5	772.3	768.2
20°	765.1	763.1	752.8	739.5	732.3
22.5°	735.3	735.3	723.0	705.6	698.4
25°	707.6	703.5	692.2	667.6	649.1
27.5°	675.8	669.6	657.3	622.4	600.8
30°	640.9	637.8	620.3	575.1	558.7
32.5°	608.0	602.9	584.4	537.1	523.8
35°	574.1	570.0	542.3	501.2	488.9
37.5°	540.2	535.1	500.2	467.3	451.9
40°	506.3	500.2	462.2	432.4	415.9
42.5°	474.5	466.3	429.3	397.5	379.0
45°	440.6	431.3	394.4	361.5	347.1
47.5°	406.7	398.5	364.6	330.7	314.3
50°	370.8	363.6	332.8	298.9	281.4
52.5°	341.0	329.7	299.9	266.0	251.6
55°	306.1	296.8	269.1	237.2	224.9
57.5°	274.2	265.0	239.3	209.5	199.2
60°	244.4	231.1	209.5	183.8	175.6
62.5°	211.6	201.3	182.8	161.2	171.5
65°	181.8	171.5	155.1	158.2	131.5
67.5°	148.9	143.8	129.4	115.0	110.9
70°	121.2	115.0	109.9	94.5	90.4
72.5°	96.5	90.4	83.2	75.0	71.9
75°	72.9	67.8	63.7	60.6	66.8
77.5°	50.3	48.3	45.2	42.1	41.1
80°	32.9	31.8	30.8	29.8	28.8
82.5°	19.5	19.5	19.5	19.5	19.5
85°	10.3	11.3	12.3	13.4	14.4
87.5°	6.2	6.2	7.2	8.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)