

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: P559053

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-81-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559053
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-12-1-LD4-2HI-35-UNV-81-96-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 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: 1818.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

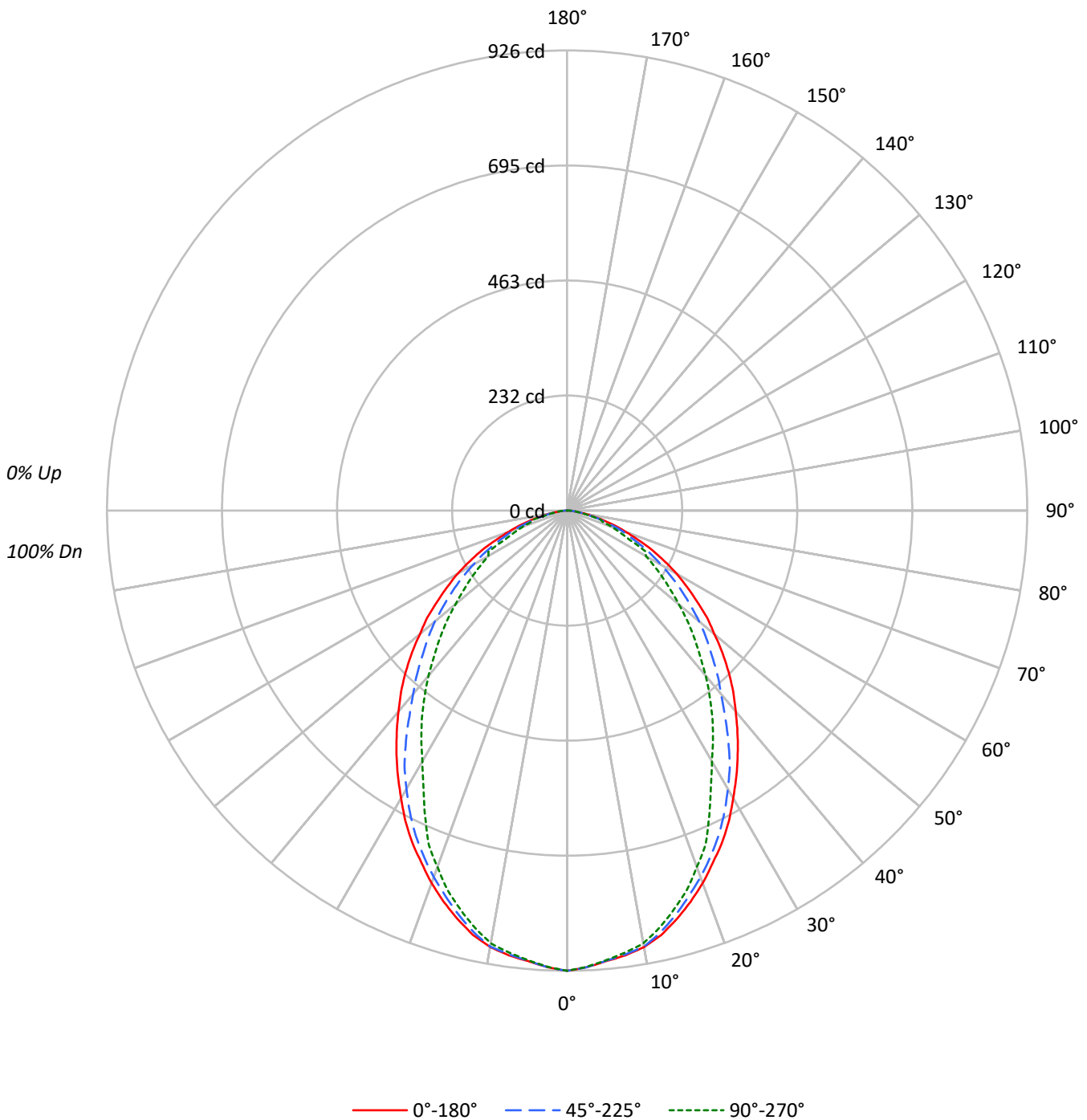
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9968	9968	9968
5°	9833	9821	9810
10°	9747	9735	9665
15°	9484	9390	9258
20°	9136	8989	8743
25°	8760	8570	8036
30°	8304	8037	7239
35°	7864	7428	6696
40°	7416	6770	6093
45°	6992	6258	5509
50°	6472	5809	4912
55°	5986	5264	4401
60°	5485	4702	3942
65°	4826	4118	3489
70°	3975	3607	2965
75°	3161	2761	2895
80°	2126	1990	1860
85°	1321	1581	1853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6992 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	4.7
10°-20°	236.6	13.0
20°-30°	327.5	18.0
30°-40°	349.2	19.2
40°-50°	318.6	17.5
50°-60°	249.6	13.7
60°-70°	162.7	8.9
70°-80°	72.1	4.0
80°-90°	15.5	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°	650.3	35.8
0°-40°	999.6	55.0
0°-60°	1567.8	86.2
0°-90°	1818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1818.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	910	909	909	908	908	86
15°	851	851	843	834	831	239
25°	738	733	722	696	677	339
35°	598	594	565	522	510	374
45°	459	450	411	377	362	354
55°	319	309	280	247	234	286
65°	190	179	162	165	137	187
75°	76	71	66	63	70	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	926.1	926.1	926.1	926.1	926.1
2.5°	919.6	919.6	919.6	918.6	918.6
5°	910.0	908.9	908.9	907.9	907.9
7.5°	902.5	901.4	900.4	899.3	897.2
10°	891.8	891.8	890.7	885.4	884.3
12.5°	874.7	873.6	869.3	861.8	859.7
15°	851.1	851.1	842.6	834.0	830.8
17.5°	825.4	824.4	813.7	805.1	800.8
20°	797.6	795.5	784.7	770.8	763.3
22.5°	766.5	766.5	753.7	735.5	728.0
25°	737.6	733.4	721.6	695.9	676.6
27.5°	704.5	698.0	685.2	648.8	626.3
30°	668.1	664.8	646.6	599.5	582.4
32.5°	633.8	628.4	609.2	559.9	546.0
35°	598.5	594.2	565.3	522.5	509.6
37.5°	563.1	557.8	521.4	487.1	471.1
40°	527.8	521.4	481.8	450.7	433.6
42.5°	494.6	486.1	447.5	414.3	395.0
45°	459.3	449.7	411.1	376.8	361.9
47.5°	424.0	415.4	380.1	344.7	327.6
50°	386.5	379.0	346.9	311.5	293.3
52.5°	355.4	343.7	312.6	277.3	262.3
55°	319.0	309.4	280.5	247.3	234.5
57.5°	285.8	276.2	249.4	218.4	207.7
60°	254.8	240.9	218.4	191.6	183.1
62.5°	220.5	209.8	190.6	168.1	178.8
65°	189.5	178.8	161.7	164.9	137.0
67.5°	155.2	149.9	134.9	119.9	115.6
70°	126.3	119.9	114.6	98.5	94.2
72.5°	100.6	94.2	86.7	78.2	74.9
75°	76.0	70.7	66.4	63.2	69.6
77.5°	52.5	50.3	47.1	43.9	42.8
80°	34.3	33.2	32.1	31.0	30.0
82.5°	20.3	20.3	20.3	20.3	20.3
85°	10.7	11.8	12.8	13.9	15.0
87.5°	6.4	6.4	7.5	8.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)