

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: P559527

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-93-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559527
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-LD4-2STD-40-UNV-93-87-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1493.0 lumens
Efficiency: N/A
Efficacy: 89.9 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

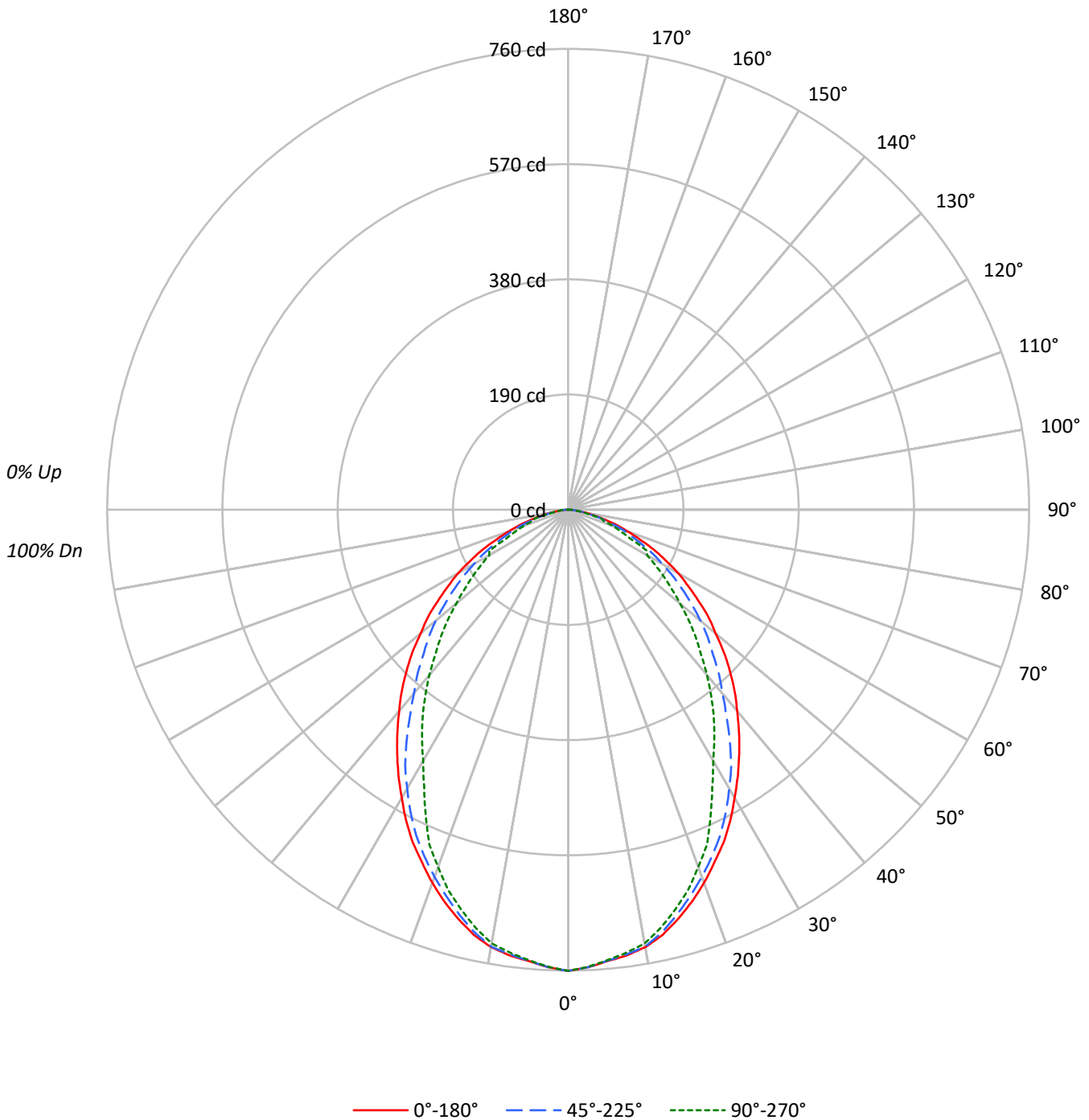
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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°	8186	8186	8186
5°	8075	8065	8056
10°	8005	7995	7937
15°	7789	7710	7603
20°	7503	7383	7181
25°	7195	7038	6600
30°	6819	6600	5945
35°	6458	6100	5499
40°	6090	5559	5004
45°	5742	5139	4524
50°	5315	4771	4034
55°	4917	4324	3613
60°	4506	3862	3236
65°	3963	3382	2865
70°	3264	2961	2436
75°	2595	2267	2375
80°	1742	1636	1525
85°	1087	1309	1519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5742 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	4.7
10°-20°	194.3	13.0
20°-30°	269.0	18.0
30°-40°	286.8	19.2
40°-50°	261.7	17.5
50°-60°	205.0	13.7
60°-70°	133.6	8.9
70°-80°	59.2	4.0
80°-90°	12.7	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°	534.1	35.8
0°-40°	820.9	55.0
0°-60°	1287.5	86.2
0°-90°	1493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	760	760	760	760	760	
5°	747	746	746	746	746	71
15°	699	699	692	685	682	197
25°	606	602	593	572	556	278
35°	492	488	464	429	418	307
45°	377	369	338	310	297	291
55°	262	254	230	203	192	235
65°	156	147	133	135	112	153
75°	62	58	54	52	57	67
85°	9	10	11	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	760.5	760.5	760.5	760.5	760.5
2.5°	755.2	755.2	755.2	754.4	754.4
5°	747.3	746.4	746.4	745.6	745.6
7.5°	741.2	740.3	739.4	738.5	736.8
10°	732.4	732.4	731.5	727.1	726.2
12.5°	718.3	717.4	713.9	707.8	706.0
15°	699.0	699.0	691.9	684.9	682.3
17.5°	677.9	677.0	668.2	661.2	657.6
20°	655.0	653.3	644.5	633.0	626.9
22.5°	629.5	629.5	619.0	604.0	597.9
25°	605.8	602.3	592.6	571.5	555.7
27.5°	578.5	573.2	562.7	532.8	514.3
30°	548.6	546.0	531.0	492.4	478.3
32.5°	520.5	516.1	500.3	459.8	448.4
35°	491.5	488.0	464.2	429.1	418.5
37.5°	462.5	458.1	428.2	400.0	386.9
40°	433.4	428.2	395.6	370.1	356.1
42.5°	406.2	399.2	367.5	340.3	324.4
45°	377.2	369.3	337.6	309.5	297.2
47.5°	348.2	341.1	312.1	283.1	269.0
50°	317.4	311.2	284.9	255.8	240.9
52.5°	291.9	282.2	256.7	227.7	215.4
55°	262.0	254.1	230.4	203.1	192.5
57.5°	234.7	226.8	204.9	179.4	170.6
60°	209.3	197.8	179.4	157.4	150.3
62.5°	181.1	172.3	156.5	138.0	146.8
65°	155.6	146.8	132.8	135.4	112.5
67.5°	127.5	123.1	110.8	98.5	95.0
70°	103.7	98.5	94.1	80.9	77.4
72.5°	82.6	77.4	71.2	64.2	61.5
75°	62.4	58.0	54.5	51.9	57.1
77.5°	43.1	41.3	38.7	36.0	35.2
80°	28.1	27.3	26.4	25.5	24.6
82.5°	16.7	16.7	16.7	16.7	16.7
85°	8.8	9.7	10.6	11.4	12.3
87.5°	5.3	5.3	6.2	7.0	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)