

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: P560101

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560101
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-LD4-1STD-40-UNV-93-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1496.0 lumens
Efficiency: N/A
Efficacy: 90.1 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

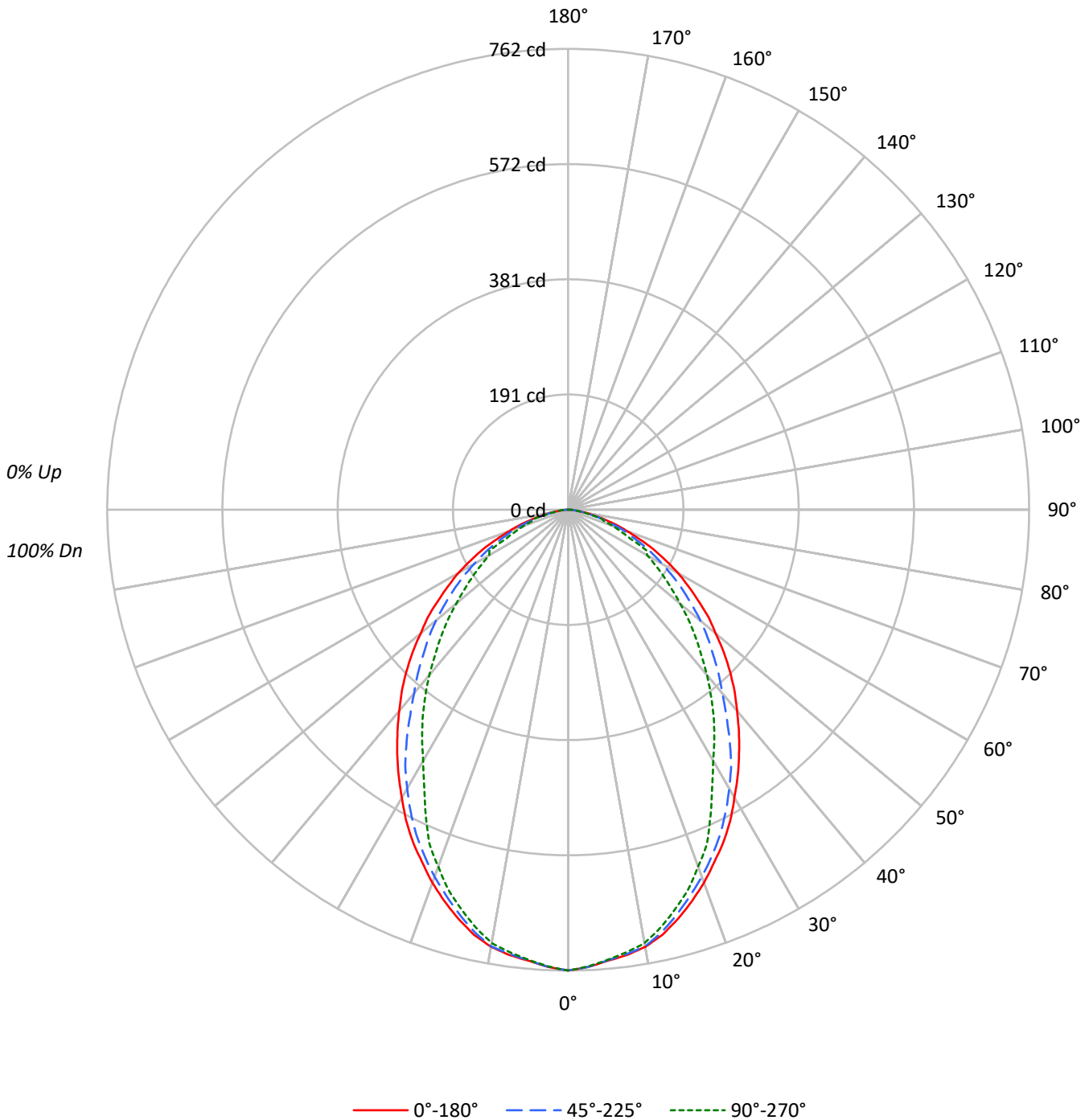
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4101	4101	4101
5°	4045	4041	4036
10°	4011	4006	3977
15°	3902	3863	3809
20°	3759	3699	3597
25°	3605	3526	3306
30°	3416	3307	2978
35°	3236	3056	2755
40°	3051	2785	2507
45°	2876	2575	2267
50°	2663	2390	2021
55°	2463	2166	1810
60°	2257	1934	1621
65°	1985	1694	1436
70°	1637	1484	1220
75°	1300	1135	1192
80°	874	818	766
85°	543	655	760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2876 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.9	4.7
10°-20°	194.7	13.0
20°-30°	269.5	18.0
30°-40°	287.4	19.2
40°-50°	262.2	17.5
50°-60°	205.4	13.7
60°-70°	133.9	8.9
70°-80°	59.3	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°	535.1	35.8
0°-40°	822.5	55.0
0°-60°	1290.1	86.2
0°-90°	1496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	749	748	748	747	747	71
15°	700	700	693	686	684	197
25°	607	604	594	573	557	279
35°	492	489	465	430	419	308
45°	378	370	338	310	298	291
55°	262	255	231	204	193	235
65°	156	147	133	136	113	154
75°	62	58	55	52	57	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	762.0	762.0	762.0	762.0	762.0
2.5°	756.8	756.8	756.8	755.9	755.9
5°	748.8	747.9	747.9	747.1	747.1
7.5°	742.7	741.8	740.9	740.0	738.3
10°	733.9	733.9	733.0	728.6	727.7
12.5°	719.8	718.9	715.4	709.2	707.4
15°	700.4	700.4	693.3	686.3	683.6
17.5°	679.2	678.3	669.5	662.5	659.0
20°	656.3	654.6	645.8	634.3	628.1
22.5°	630.8	630.8	620.2	605.2	599.1
25°	607.0	603.5	593.8	572.6	556.8
27.5°	579.7	574.4	563.8	533.9	515.4
30°	549.7	547.1	532.1	493.3	479.2
32.5°	521.5	517.1	501.3	460.7	449.3
35°	492.5	488.9	465.2	429.9	419.3
37.5°	463.4	459.0	429.0	400.8	387.6
40°	434.3	429.0	396.4	370.9	356.8
42.5°	407.0	400.0	368.2	340.9	325.1
45°	377.9	370.0	338.3	310.1	297.8
47.5°	348.9	341.8	312.7	283.7	269.6
50°	318.0	311.9	285.4	256.4	241.4
52.5°	292.5	282.8	257.2	228.2	215.8
55°	262.5	254.6	230.8	203.5	192.9
57.5°	235.2	227.3	205.3	179.7	170.9
60°	209.7	198.2	179.7	157.7	150.6
62.5°	181.5	172.7	156.8	138.3	147.1
65°	155.9	147.1	133.0	135.7	112.8
67.5°	127.7	123.3	111.0	98.7	95.1
70°	104.0	98.7	94.3	81.0	77.5
72.5°	82.8	77.5	71.4	64.3	61.7
75°	62.5	58.1	54.6	52.0	57.3
77.5°	43.2	41.4	38.8	36.1	35.2
80°	28.2	27.3	26.4	25.5	24.7
82.5°	16.7	16.7	16.7	16.7	16.7
85°	8.8	9.7	10.6	11.5	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)