

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: P560492

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560492
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-LD4-2LO-40-UNV-93-96-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1920.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

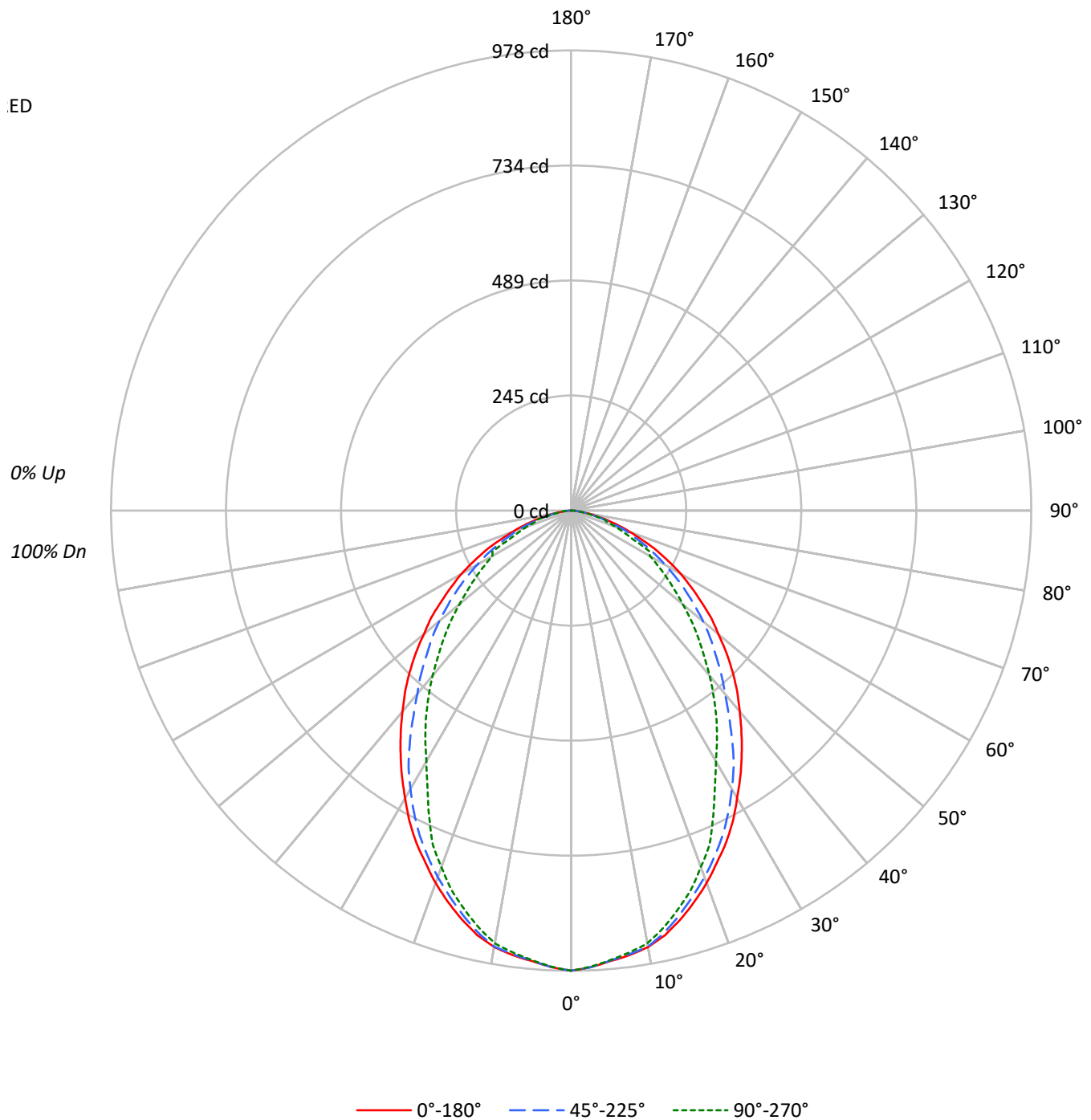
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5264	5264	5264
5°	5192	5186	5180
10°	5147	5141	5104
15°	5009	4958	4889
20°	4824	4747	4617
25°	4626	4526	4244
30°	4384	4244	3823
35°	4152	3922	3536
40°	3916	3575	3217
45°	3692	3305	2909
50°	3418	3067	2594
55°	3161	2779	2323
60°	2897	2483	2081
65°	2548	2174	1843
70°	2099	1904	1566
75°	1670	1458	1528
80°	1122	1051	982
85°	698	840	976

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.0	4.7
10°-20°	249.9	13.0
20°-30°	345.9	18.0
30°-40°	368.8	19.2
40°-50°	336.5	17.5
50°-60°	263.6	13.7
60°-70°	171.8	8.9
70°-80°	76.1	4.0
80°-90°	16.3	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°	686.8	35.8
0°-40°	1055.6	55.0
0°-60°	1655.7	86.2
0°-90°	1920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	961	960	960	959	959	91
15°	899	899	890	881	877	253
25°	779	774	762	735	715	358
35°	632	628	597	552	538	395
45°	485	475	434	398	382	374
55°	337	327	296	261	248	302
65°	200	189	171	174	145	197
75°	80	75	70	67	74	86
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.0	978.0	978.0	978.0	978.0
2.5°	971.2	971.2	971.2	970.1	970.1
5°	961.1	959.9	959.9	958.8	958.8
7.5°	953.1	952.0	950.9	949.8	947.5
10°	941.8	941.8	940.7	935.1	933.9
12.5°	923.8	922.6	918.1	910.2	907.9
15°	898.9	898.9	889.8	880.8	877.4
17.5°	871.7	870.6	859.3	850.3	845.7
20°	842.3	840.1	828.8	814.1	806.2
22.5°	809.6	809.6	796.0	776.8	768.8
25°	779.0	774.5	762.1	734.9	714.6
27.5°	744.0	737.2	723.6	685.2	661.4
30°	705.5	702.1	682.9	633.2	615.1
32.5°	669.4	663.7	643.3	591.3	576.6
35°	632.0	627.5	597.0	551.8	538.2
37.5°	594.7	589.1	550.6	514.5	497.5
40°	557.4	550.6	508.8	476.0	457.9
42.5°	522.4	513.3	472.6	437.6	417.2
45°	485.1	474.9	434.2	398.0	382.2
47.5°	447.7	438.7	401.4	364.1	346.0
50°	408.2	400.3	366.3	329.0	309.8
52.5°	375.4	362.9	330.2	292.8	277.0
55°	336.9	326.8	296.2	261.2	247.6
57.5°	301.9	291.7	263.4	230.7	219.3
60°	269.1	254.4	230.7	202.4	193.3
62.5°	232.9	221.6	201.3	177.5	188.8
65°	200.1	188.8	170.7	174.1	144.7
67.5°	163.9	158.3	142.5	126.6	122.1
70°	133.4	126.6	121.0	104.0	99.5
72.5°	106.3	99.5	91.6	82.5	79.1
75°	80.3	74.6	70.1	66.7	73.5
77.5°	55.4	53.1	49.7	46.4	45.2
80°	36.2	35.1	33.9	32.8	31.7
82.5°	21.5	21.5	21.5	21.5	21.5
85°	11.3	12.4	13.6	14.7	15.8
87.5°	6.8	6.8	7.9	9.0	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)