

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: P560099

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560099
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-93-85-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1513.0 lumens
Efficiency: N/A
Efficacy: 91.1 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

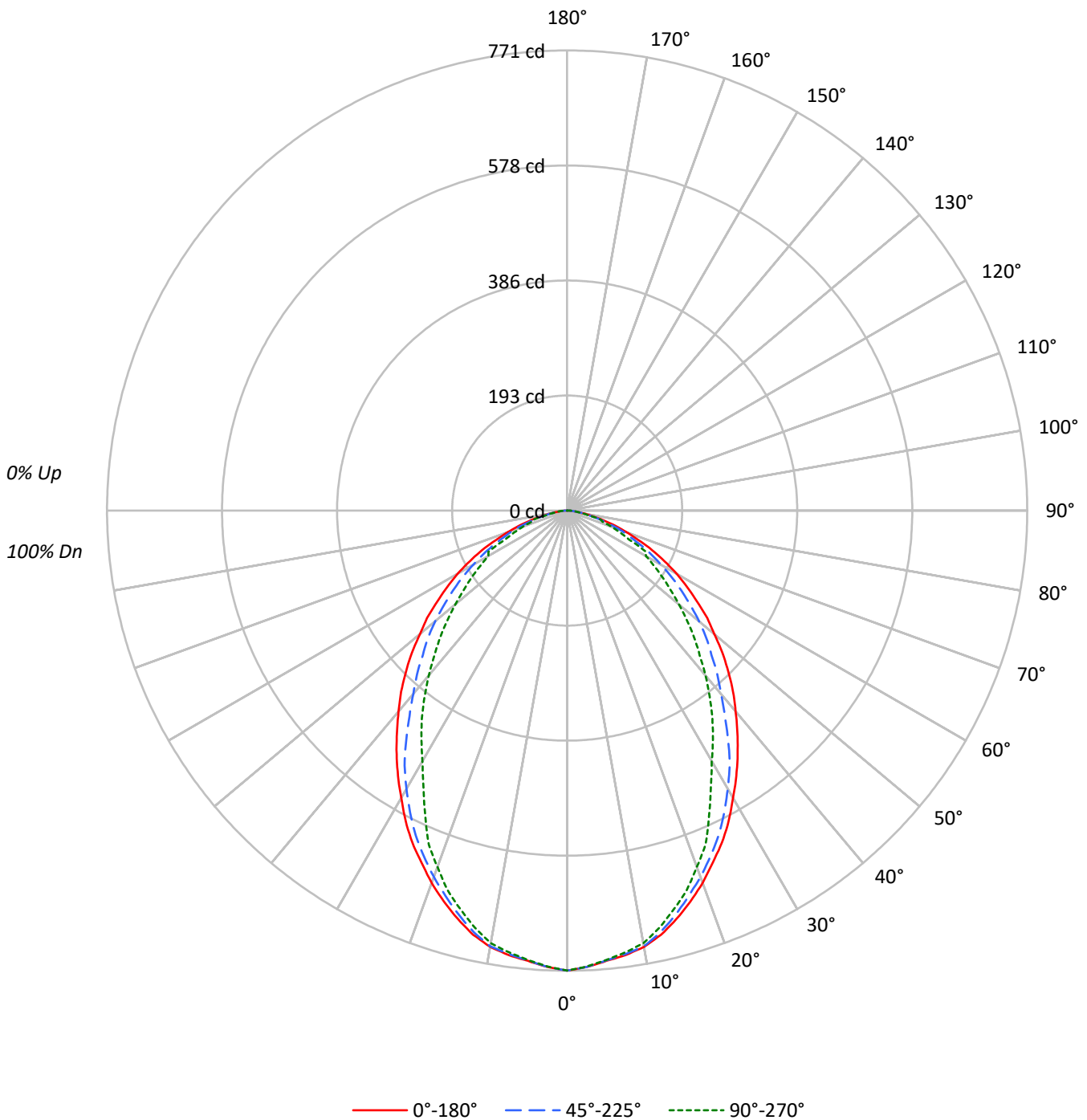
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	4148	4148	4148
5°	4091	4086	4082
10°	4056	4051	4022
15°	3947	3907	3852
20°	3802	3741	3639
25°	3646	3566	3344
30°	3455	3345	3012
35°	3273	3091	2786
40°	3086	2817	2535
45°	2909	2604	2293
50°	2693	2417	2044
55°	2491	2190	1831
60°	2283	1957	1640
65°	2008	1713	1452
70°	1654	1500	1234
75°	1316	1148	1204
80°	883	828	772
85°	550	661	772

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2909 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	4.7
10°-20°	196.9	13.0
20°-30°	272.6	18.0
30°-40°	290.7	19.2
40°-50°	265.1	17.5
50°-60°	207.7	13.7
60°-70°	135.4	8.9
70°-80°	60.0	4.0
80°-90°	12.9	0.8
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°	541.2	35.8
0°-40°	831.9	55.0
0°-60°	1304.7	86.2
0°-90°	1513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	757	756	756	756	756	72
15°	708	708	701	694	691	199
25°	614	610	600	579	563	282
35°	498	494	470	435	424	311
45°	382	374	342	314	301	294
55°	266	258	233	206	195	238
65°	158	149	134	137	114	155
75°	63	59	55	53	58	68
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°	770.7	770.7	770.7	770.7	770.7
2.5°	765.4	765.4	765.4	764.5	764.5
5°	757.3	756.4	756.4	755.6	755.6
7.5°	751.1	750.2	749.3	748.4	746.6
10°	742.2	742.2	741.3	736.8	736.0
12.5°	727.9	727.0	723.5	717.2	715.5
15°	708.3	708.3	701.2	694.1	691.4
17.5°	686.9	686.1	677.1	670.0	666.5
20°	663.8	662.0	653.1	641.5	635.3
22.5°	637.9	637.9	627.3	612.1	605.9
25°	613.9	610.3	600.5	579.1	563.1
27.5°	586.3	580.9	570.2	539.9	521.2
30°	556.0	553.3	538.2	499.0	484.7
32.5°	527.5	523.0	507.0	466.0	454.4
35°	498.1	494.5	470.4	434.8	424.1
37.5°	468.7	464.2	433.9	405.4	392.0
40°	439.3	433.9	400.9	375.1	360.8
42.5°	411.6	404.5	372.4	344.8	328.8
45°	382.2	374.2	342.1	313.6	301.2
47.5°	352.8	345.7	316.3	286.9	272.6
50°	321.6	315.4	288.7	259.3	244.1
52.5°	295.8	286.0	260.2	230.8	218.3
55°	265.5	257.5	233.4	205.8	195.1
57.5°	237.9	229.9	207.6	181.8	172.9
60°	212.1	200.5	181.8	159.5	152.4
62.5°	183.5	174.6	158.6	139.9	148.8
65°	157.7	148.8	134.5	137.2	114.0
67.5°	129.2	124.7	112.3	99.8	96.2
70°	105.1	99.8	95.3	82.0	78.4
72.5°	83.8	78.4	72.2	65.0	62.4
75°	63.3	58.8	55.2	52.6	57.9
77.5°	43.7	41.9	39.2	36.5	35.6
80°	28.5	27.6	26.7	25.8	24.9
82.5°	16.9	16.9	16.9	16.9	16.9
85°	8.9	9.8	10.7	11.6	12.5
87.5°	5.3	5.3	6.2	7.1	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)