

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: P558889

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558889
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-LD4-1STD-35-UNV-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 666.0 lumens
Efficiency: N/A
Efficacy: 80.2 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

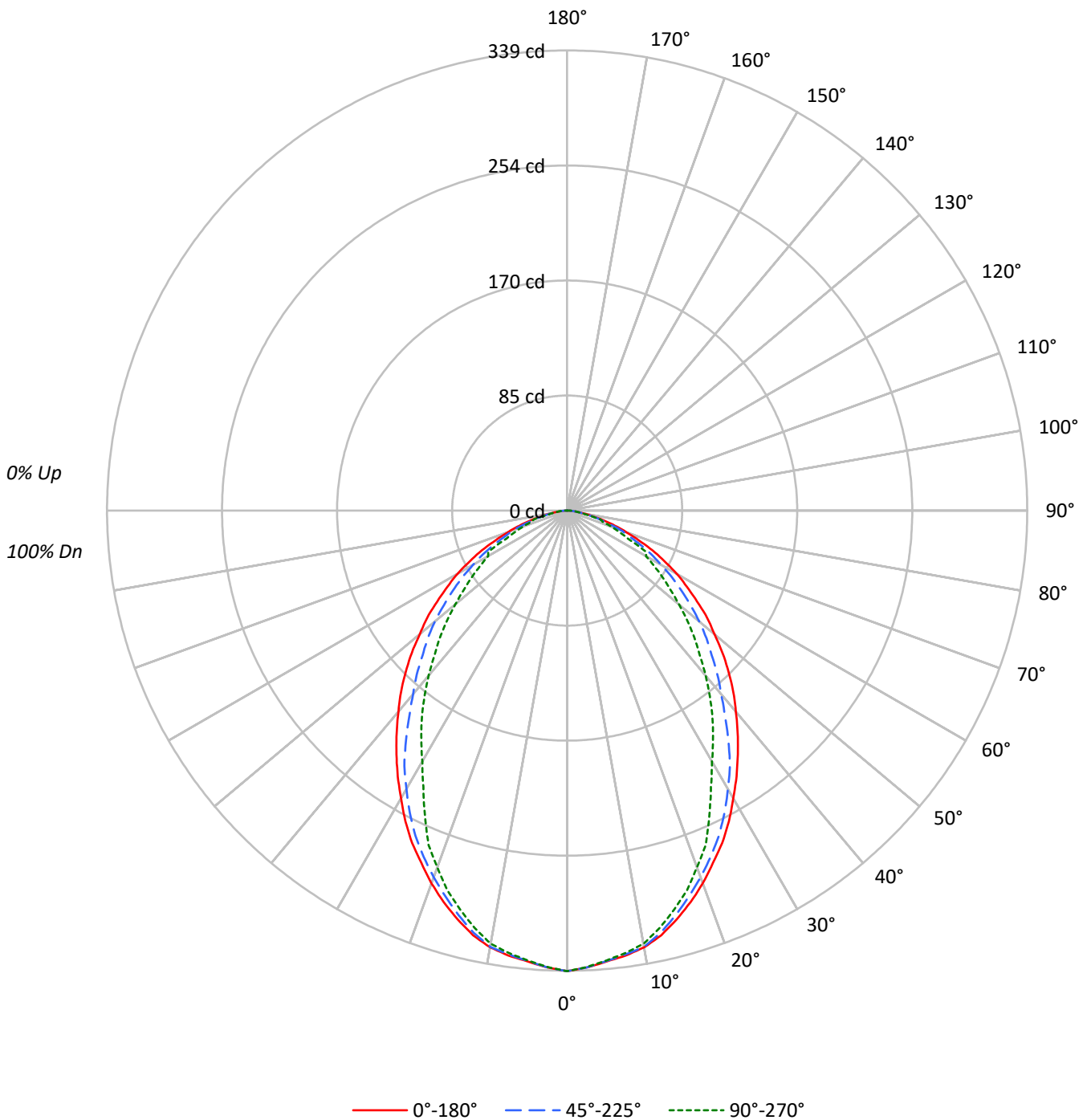
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	47	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°	3652	3652	3652
5°	3602	3598	3594
10°	3571	3566	3541
15°	3475	3440	3391
20°	3347	3293	3203
25°	3209	3139	2944
30°	3041	2944	2652
35°	2880	2721	2453
40°	2718	2480	2231
45°	2562	2293	2019
50°	2371	2128	1800
55°	2194	1929	1612
60°	2009	1722	1445
65°	1768	1508	1279
70°	1457	1322	1086
75°	1156	1011	1061
80°	781	731	682
85°	482	580	679

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2562 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.6	4.7
10°-20°	86.7	13.0
20°-30°	120.0	18.0
30°-40°	127.9	19.2
40°-50°	116.7	17.5
50°-60°	91.4	13.7
60°-70°	59.6	8.9
70°-80°	26.4	4.0
80°-90°	5.7	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°	238.2	35.8
0°-40°	366.2	55.0
0°-60°	574.3	86.2
0°-90°	666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	339	339	339	339	339	
5°	333	333	333	333	333	32
15°	312	312	309	306	304	88
25°	270	269	264	255	248	124
35°	219	218	207	191	187	137
45°	168	165	151	138	133	130
55°	117	113	103	91	86	105
65°	69	66	59	60	50	68
75°	28	26	24	23	26	30
85°	4	4	5	5	6	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	339.3	339.3	339.3	339.3	339.3
2.5°	336.9	336.9	336.9	336.5	336.5
5°	333.4	333.0	333.0	332.6	332.6
7.5°	330.6	330.2	329.8	329.4	328.7
10°	326.7	326.7	326.3	324.3	324.0
12.5°	320.4	320.0	318.5	315.7	314.9
15°	311.8	311.8	308.7	305.5	304.3
17.5°	302.4	302.0	298.1	294.9	293.4
20°	292.2	291.4	287.5	282.4	279.6
22.5°	280.8	280.8	276.1	269.4	266.7
25°	270.2	268.7	264.3	254.9	247.9
27.5°	258.1	255.7	251.0	237.7	229.4
30°	244.7	243.6	236.9	219.6	213.4
32.5°	232.2	230.2	223.2	205.1	200.0
35°	219.2	217.7	207.1	191.4	186.7
37.5°	206.3	204.3	191.0	178.5	172.6
40°	193.4	191.0	176.5	165.1	158.8
42.5°	181.2	178.1	163.9	151.8	144.7
45°	168.3	164.7	150.6	138.1	132.6
47.5°	155.3	152.2	139.2	126.3	120.0
50°	141.6	138.8	127.1	114.1	107.5
52.5°	130.2	125.9	114.5	101.6	96.1
55°	116.9	113.3	102.8	90.6	85.9
57.5°	104.7	101.2	91.4	80.0	76.1
60°	93.3	88.2	80.0	70.2	67.1
62.5°	80.8	76.9	69.8	61.6	65.5
65°	69.4	65.5	59.2	60.4	50.2
67.5°	56.9	54.9	49.4	43.9	42.4
70°	46.3	43.9	42.0	36.1	34.5
72.5°	36.9	34.5	31.8	28.6	27.5
75°	27.8	25.9	24.3	23.1	25.5
77.5°	19.2	18.4	17.3	16.1	15.7
80°	12.6	12.2	11.8	11.4	11.0
82.5°	7.5	7.5	7.5	7.5	7.5
85°	3.9	4.3	4.7	5.1	5.5
87.5°	2.4	2.4	2.7	3.1	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)