

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: P559455

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-82-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559455
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-35-UNV-82-97-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1429.0 lumens
Efficiency: N/A
Efficacy: 86.1 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

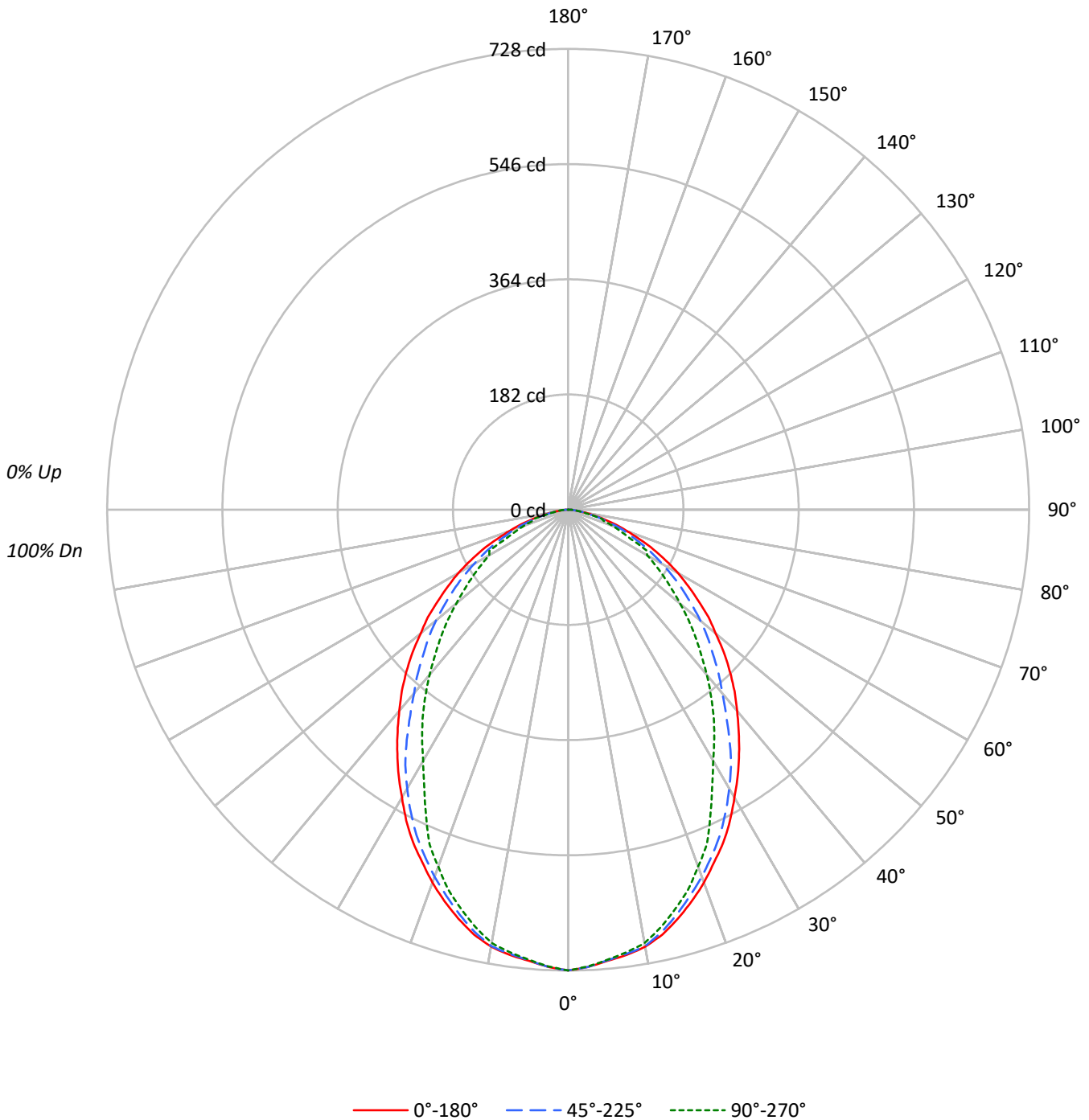
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7835	7835	7835
5°	7729	7719	7710
10°	7662	7652	7597
15°	7455	7380	7277
20°	7181	7065	6873
25°	6886	6736	6316
30°	6527	6318	5690
35°	6181	5838	5264
40°	5830	5321	4789
45°	5495	4918	4329
50°	5087	4567	3862
55°	4707	4138	3459
60°	4312	3696	3098
65°	3792	3237	2743
70°	3125	2832	2332
75°	2483	2171	2275
80°	1667	1562	1463
85°	1037	1247	1457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5495 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	4.7
10°-20°	186.0	13.0
20°-30°	257.4	18.0
30°-40°	274.5	19.2
40°-50°	250.4	17.5
50°-60°	196.2	13.7
60°-70°	127.9	8.9
70°-80°	56.7	4.0
80°-90°	12.2	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°	511.2	35.8
0°-40°	785.7	55.0
0°-60°	1232.3	86.2
0°-90°	1429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	715	714	714	714	714	68
15°	669	669	662	656	653	188
25°	580	576	567	547	532	266
35°	470	467	444	411	401	294
45°	361	353	323	296	284	278
55°	251	243	220	194	184	225
65°	149	140	127	130	108	147
75°	60	56	52	50	55	64
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.9	727.9	727.9	727.9	727.9
2.5°	722.9	722.9	722.9	722.0	722.0
5°	715.3	714.4	714.4	713.6	713.6
7.5°	709.4	708.6	707.7	706.9	705.2
10°	701.0	701.0	700.1	695.9	695.1
12.5°	687.5	686.7	683.3	677.4	675.7
15°	669.0	669.0	662.3	655.5	653.0
17.5°	648.8	648.0	639.6	632.8	629.5
20°	626.9	625.2	616.8	605.9	600.0
22.5°	602.5	602.5	592.4	578.1	572.2
25°	579.8	576.4	567.2	547.0	531.8
27.5°	553.7	548.7	538.6	510.0	492.3
30°	525.1	522.6	508.3	471.3	457.8
32.5°	498.2	494.0	478.8	440.1	429.2
35°	470.4	467.0	444.3	410.7	400.6
37.5°	442.6	438.4	409.8	382.9	370.3
40°	414.9	409.8	378.7	354.3	340.8
42.5°	388.8	382.0	351.8	325.7	310.5
45°	361.0	353.4	323.1	296.2	284.4
47.5°	333.2	326.5	298.7	271.0	257.5
50°	303.8	297.9	272.7	244.9	230.6
52.5°	279.4	270.1	245.7	218.0	206.2
55°	250.8	243.2	220.5	194.4	184.3
57.5°	224.7	217.1	196.1	171.7	163.3
60°	200.3	189.3	171.7	150.6	143.9
62.5°	173.4	164.9	149.8	132.1	140.5
65°	148.9	140.5	127.1	129.6	107.7
67.5°	122.0	117.8	106.0	94.3	90.9
70°	99.3	94.3	90.0	77.4	74.1
72.5°	79.1	74.1	68.2	61.4	58.9
75°	59.7	55.5	52.2	49.6	54.7
77.5°	41.2	39.6	37.0	34.5	33.7
80°	26.9	26.1	25.2	24.4	23.6
82.5°	16.0	16.0	16.0	16.0	16.0
85°	8.4	9.3	10.1	10.9	11.8
87.5°	5.0	5.0	5.9	6.7	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)