

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: P559050

Luminaire Tested: FSR-12-1-LD4-2HI-35-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559050
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-LD4-2HI-35-UNV-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1538.0 lumens
Efficiency: N/A
Efficacy: 71.2 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

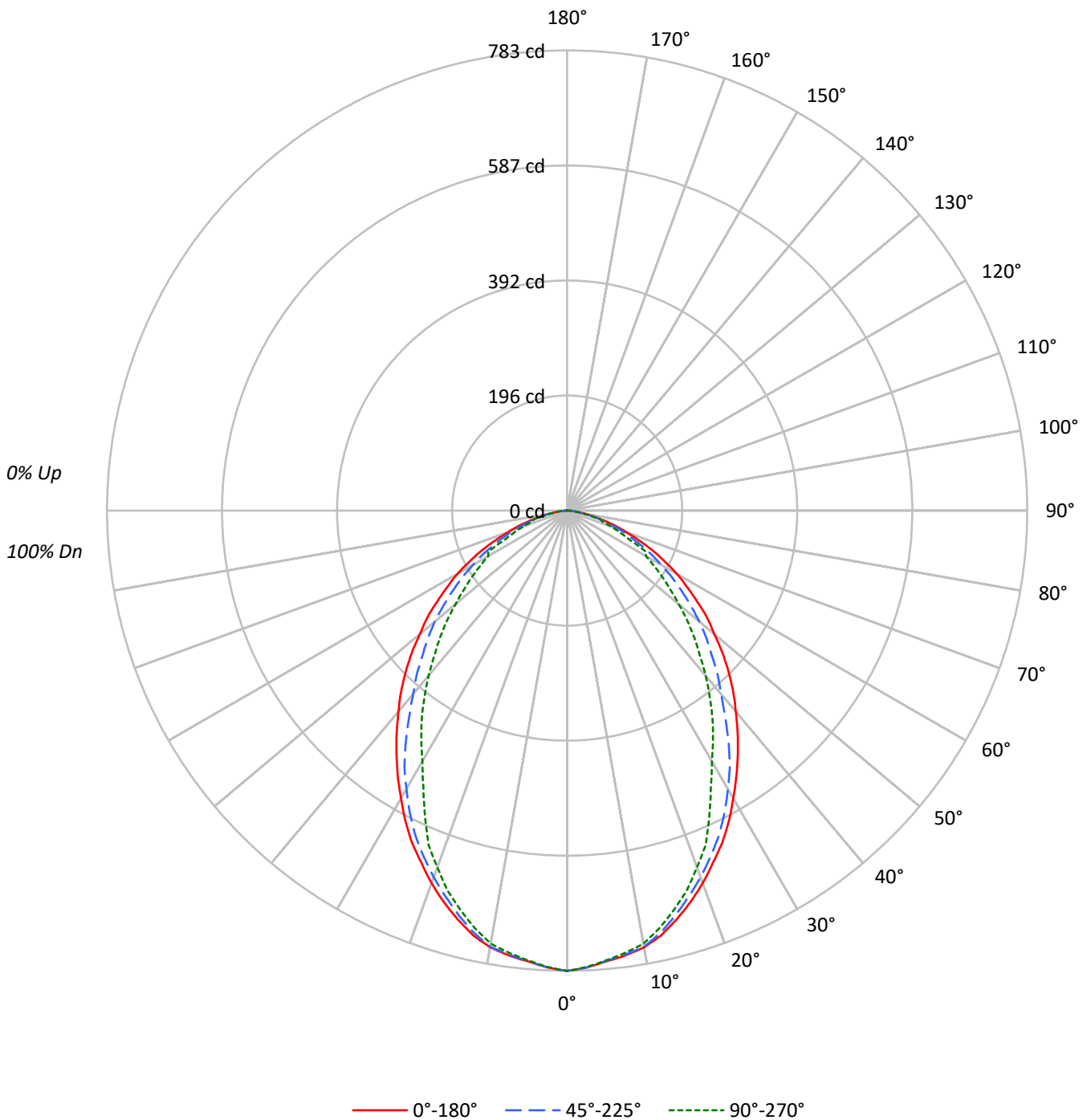
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8432	8432	8432
5°	8319	8308	8298
10°	8247	8236	8177
15°	8023	7943	7832
20°	7730	7605	7397
25°	7411	7250	6798
30°	7025	6799	6124
35°	6653	6284	5665
40°	6274	5727	5154
45°	5914	5294	4660
50°	5476	4913	4156
55°	5065	4453	3721
60°	4641	3978	3335
65°	4083	3484	2952
70°	3364	3050	2508
75°	2674	2337	2450
80°	1798	1686	1574
85°	1124	1346	1568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5914 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	4.7
10°-20°	200.1	13.0
20°-30°	277.1	18.0
30°-40°	295.5	19.2
40°-50°	269.5	17.5
50°-60°	211.2	13.7
60°-70°	137.6	8.9
70°-80°	61.0	4.0
80°-90°	13.1	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°	550.2	35.8
0°-40°	845.6	55.0
0°-60°	1326.3	86.2
0°-90°	1538.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1538.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	770	769	769	768	768	73
15°	720	720	713	706	703	202
25°	624	620	610	589	572	287
35°	506	503	478	442	431	317
45°	388	380	348	319	306	299
55°	270	262	237	209	198	242
65°	160	151	137	140	116	158
75°	64	60	56	53	59	69
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	783.4	783.4	783.4	783.4	783.4
2.5°	778.0	778.0	778.0	777.1	777.1
5°	769.9	768.9	768.9	768.0	768.0
7.5°	763.5	762.6	761.7	760.8	759.0
10°	754.5	754.5	753.5	749.0	748.1
12.5°	740.0	739.1	735.4	729.1	727.3
15°	720.0	720.0	712.8	705.5	702.8
17.5°	698.3	697.4	688.3	681.1	677.5
20°	674.8	672.9	663.9	652.1	645.8
22.5°	648.5	648.5	637.6	622.2	615.9
25°	624.0	620.4	610.4	588.7	572.4
27.5°	596.0	590.5	579.7	548.9	529.8
30°	565.2	562.4	547.0	507.2	492.7
32.5°	536.2	531.7	515.3	473.7	461.9
35°	506.3	502.7	478.2	442.0	431.1
37.5°	476.4	471.9	441.1	412.1	398.5
40°	446.5	441.1	407.6	381.3	366.8
42.5°	418.4	411.2	378.6	350.5	334.2
45°	388.5	380.4	347.8	318.8	306.1
47.5°	358.7	351.4	321.5	291.6	277.1
50°	327.0	320.6	293.4	263.6	248.2
52.5°	300.7	290.7	264.5	234.6	221.9
55°	269.9	261.7	237.3	209.2	198.3
57.5°	241.8	233.7	211.0	184.8	175.7
60°	215.6	203.8	184.8	162.1	154.9
62.5°	186.6	177.5	161.2	142.2	151.3
65°	160.3	151.3	136.8	139.5	115.9
67.5°	131.3	126.8	114.1	101.4	97.8
70°	106.9	101.4	96.9	83.3	79.7
72.5°	85.1	79.7	73.4	66.1	63.4
75°	64.3	59.8	56.2	53.4	58.9
77.5°	44.4	42.6	39.9	37.1	36.2
80°	29.0	28.1	27.2	26.3	25.4
82.5°	17.2	17.2	17.2	17.2	17.2
85°	9.1	10.0	10.9	11.8	12.7
87.5°	5.4	5.4	6.3	7.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)