

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: P558731

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558731
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-LD4-1LO-40-UNV-81-94-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 565.0 lumens
Efficiency: N/A
Efficacy: 97.4 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

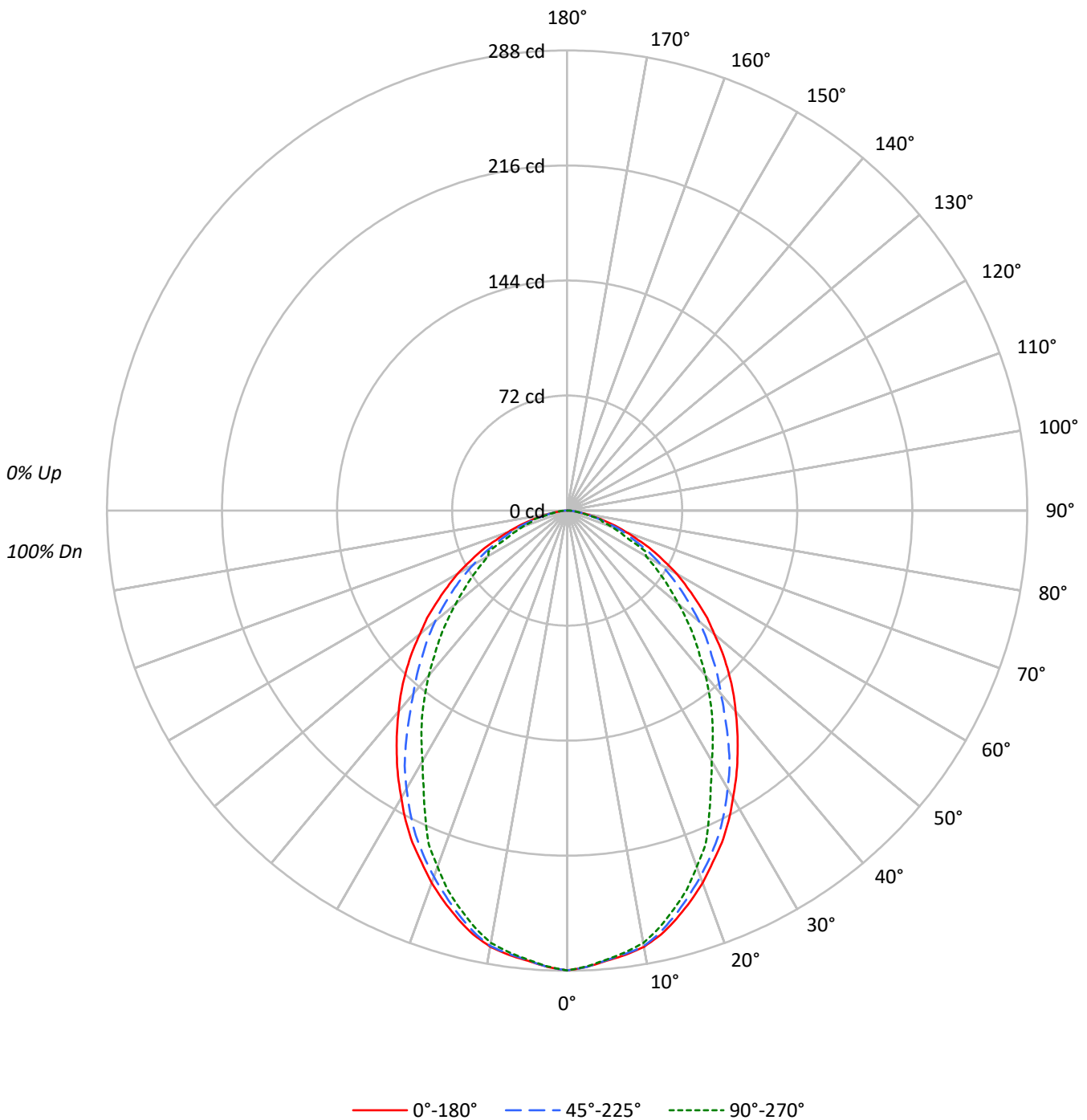
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3098	3098	3098
5°	3056	3052	3048
10°	3030	3025	3004
15°	2947	2919	2877
20°	2840	2794	2717
25°	2722	2664	2498
30°	2580	2498	2250
35°	2444	2309	2081
40°	2304	2103	1894
45°	2172	1945	1713
50°	2011	1805	1527
55°	1862	1636	1368
60°	1705	1462	1225
65°	1500	1279	1085
70°	1237	1120	922
75°	981	857	898
80°	657	620	576
85°	408	494	580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2172 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.8	4.7
10°-20°	73.5	13.0
20°-30°	101.8	18.0
30°-40°	108.5	19.2
40°-50°	99.0	17.5
50°-60°	77.6	13.7
60°-70°	50.6	8.9
70°-80°	22.4	4.0
80°-90°	4.8	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°	202.1	35.8
0°-40°	310.6	55.0
0°-60°	487.2	86.2
0°-90°	565.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	565.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	288	288	288	288	288	
5°	283	282	282	282	282	27
15°	264	264	262	259	258	74
25°	229	228	224	216	210	105
35°	186	185	176	162	158	116
45°	143	140	128	117	112	110
55°	99	96	87	77	73	89
65°	59	56	50	51	43	58
75°	24	22	21	20	22	25
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	287.8	287.8	287.8	287.8	287.8
2.5°	285.8	285.8	285.8	285.5	285.5
5°	282.8	282.5	282.5	282.1	282.1
7.5°	280.5	280.2	279.8	279.5	278.8
10°	277.2	277.2	276.8	275.2	274.8
12.5°	271.8	271.5	270.2	267.8	267.2
15°	264.5	264.5	261.9	259.2	258.2
17.5°	256.5	256.2	252.9	250.2	248.9
20°	247.9	247.2	243.9	239.6	237.2
22.5°	238.2	238.2	234.2	228.6	226.3
25°	229.2	227.9	224.3	216.3	210.3
27.5°	218.9	216.9	212.9	201.6	194.6
30°	207.6	206.6	201.0	186.3	181.0
32.5°	197.0	195.3	189.3	174.0	169.7
35°	186.0	184.7	175.7	162.4	158.4
37.5°	175.0	173.3	162.0	151.4	146.4
40°	164.0	162.0	149.7	140.1	134.8
42.5°	153.7	151.1	139.1	128.8	122.8
45°	142.7	139.7	127.8	117.1	112.5
47.5°	131.8	129.1	118.1	107.1	101.8
50°	120.1	117.8	107.8	96.8	91.2
52.5°	110.5	106.8	97.2	86.2	81.5
55°	99.2	96.2	87.2	76.9	72.9
57.5°	88.8	85.8	77.5	67.9	64.5
60°	79.2	74.9	67.9	59.6	56.9
62.5°	68.5	65.2	59.2	52.2	55.6
65°	58.9	55.6	50.2	51.2	42.6
67.5°	48.2	46.6	41.9	37.3	35.9
70°	39.3	37.3	35.6	30.6	29.3
72.5°	31.3	29.3	27.0	24.3	23.3
75°	23.6	22.0	20.6	19.6	21.6
77.5°	16.3	15.6	14.6	13.6	13.3
80°	10.6	10.3	10.0	9.6	9.3
82.5°	6.3	6.3	6.3	6.3	6.3
85°	3.3	3.7	4.0	4.3	4.7
87.5°	2.0	2.0	2.3	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)