

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: P558755

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558755
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-93-85-EDD
Description: 1X1 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: 583.0 lumens
Efficiency: N/A
Efficacy: 100.5 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

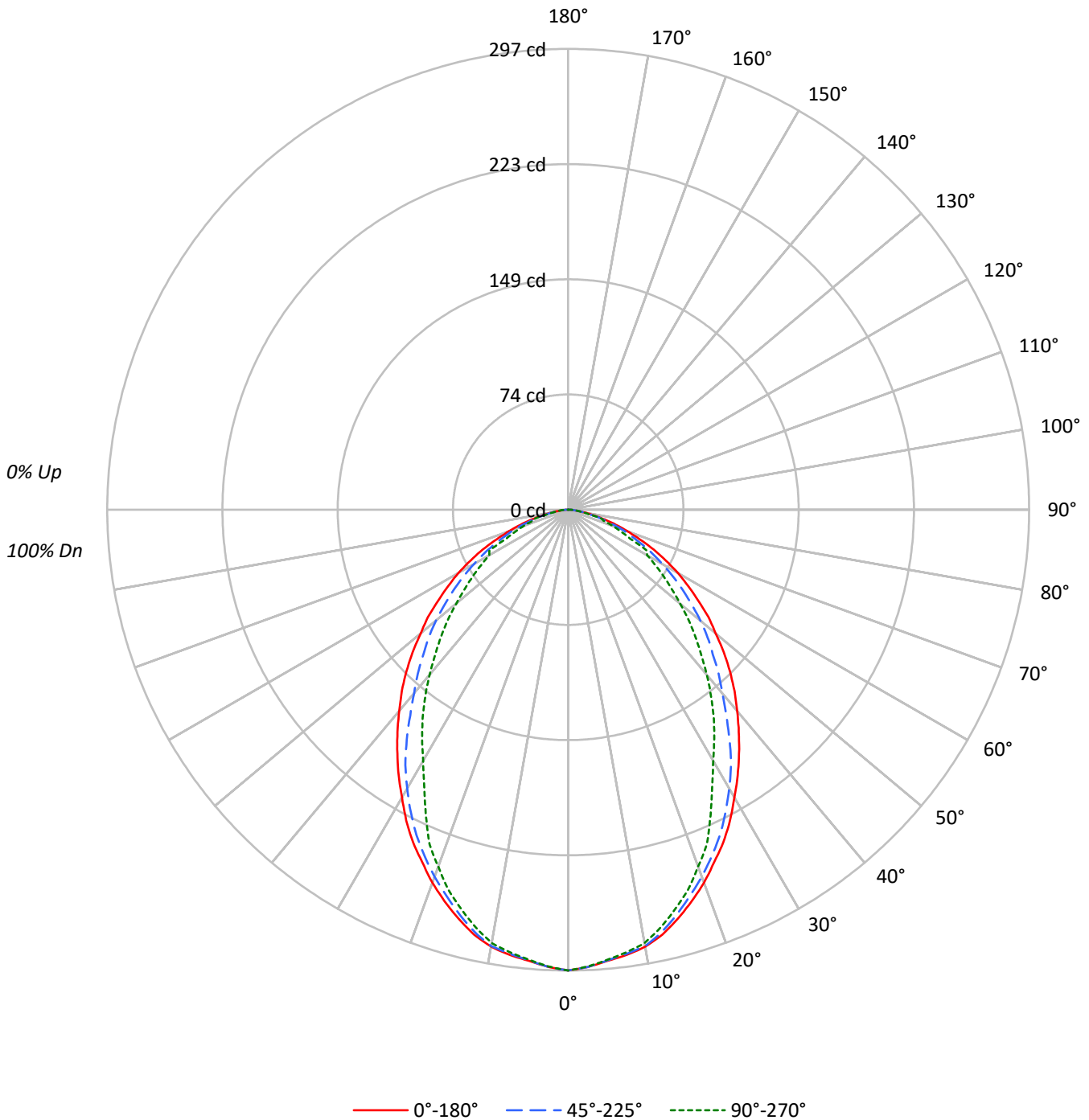
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3197	3197	3197
5°	3153	3150	3145
10°	3126	3122	3100
15°	3041	3011	2969
20°	2930	2883	2804
25°	2809	2748	2577
30°	2662	2578	2322
35°	2522	2382	2147
40°	2379	2171	1953
45°	2242	2006	1766
50°	2075	1862	1576
55°	1920	1689	1411
60°	1759	1507	1264
65°	1549	1319	1118
70°	1275	1155	950
75°	1015	886	927
80°	682	638	595
85°	420	506	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2242 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.6	4.7
10°-20°	75.9	13.0
20°-30°	105.0	18.0
30°-40°	112.0	19.2
40°-50°	102.2	17.5
50°-60°	80.0	13.7
60°-70°	52.2	8.9
70°-80°	23.1	4.0
80°-90°	5.0	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°	208.5	35.8
0°-40°	320.5	55.0
0°-60°	502.7	86.2
0°-90°	583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	583.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	297	297	297	297	297	
5°	292	292	292	291	291	28
15°	273	273	270	267	266	77
25°	236	235	231	223	217	109
35°	192	190	181	168	163	120
45°	147	144	132	121	116	113
55°	102	99	90	79	75	92
65°	61	57	52	53	44	60
75°	24	23	21	20	22	26
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°	297.0	297.0	297.0	297.0	297.0
2.5°	294.9	294.9	294.9	294.6	294.6
5°	291.8	291.5	291.5	291.1	291.1
7.5°	289.4	289.1	288.7	288.4	287.7
10°	286.0	286.0	285.6	283.9	283.6
12.5°	280.5	280.1	278.8	276.4	275.7
15°	272.9	272.9	270.2	267.4	266.4
17.5°	264.7	264.4	260.9	258.2	256.8
20°	255.8	255.1	251.7	247.2	244.8
22.5°	245.8	245.8	241.7	235.9	233.5
25°	236.5	235.2	231.4	223.2	217.0
27.5°	225.9	223.8	219.7	208.1	200.8
30°	214.2	213.2	207.4	192.3	186.8
32.5°	203.2	201.5	195.3	179.6	175.1
35°	191.9	190.5	181.3	167.5	163.4
37.5°	180.6	178.9	167.2	156.2	151.1
40°	169.3	167.2	154.5	144.5	139.0
42.5°	158.6	155.9	143.5	132.9	126.7
45°	147.3	144.2	131.8	120.8	116.0
47.5°	136.0	133.2	121.9	110.5	105.1
50°	123.9	121.5	111.2	99.9	94.1
52.5°	114.0	110.2	100.2	88.9	84.1
55°	102.3	99.2	90.0	79.3	75.2
57.5°	91.7	88.6	80.0	70.0	66.6
60°	81.7	77.2	70.0	61.5	58.7
62.5°	70.7	67.3	61.1	53.9	57.3
65°	60.8	57.3	51.8	52.9	43.9
67.5°	49.8	48.1	43.3	38.5	37.1
70°	40.5	38.5	36.7	31.6	30.2
72.5°	32.3	30.2	27.8	25.1	24.0
75°	24.4	22.7	21.3	20.3	22.3
77.5°	16.8	16.1	15.1	14.1	13.7
80°	11.0	10.6	10.3	10.0	9.6
82.5°	6.5	6.5	6.5	6.5	6.5
85°	3.4	3.8	4.1	4.5	4.8
87.5°	2.1	2.1	2.4	2.7	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)