

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: P558520

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558520
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-LD4-1HI-40-UNV-80-88-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 692.0 lumens
Efficiency: N/A
Efficacy: 64.1 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

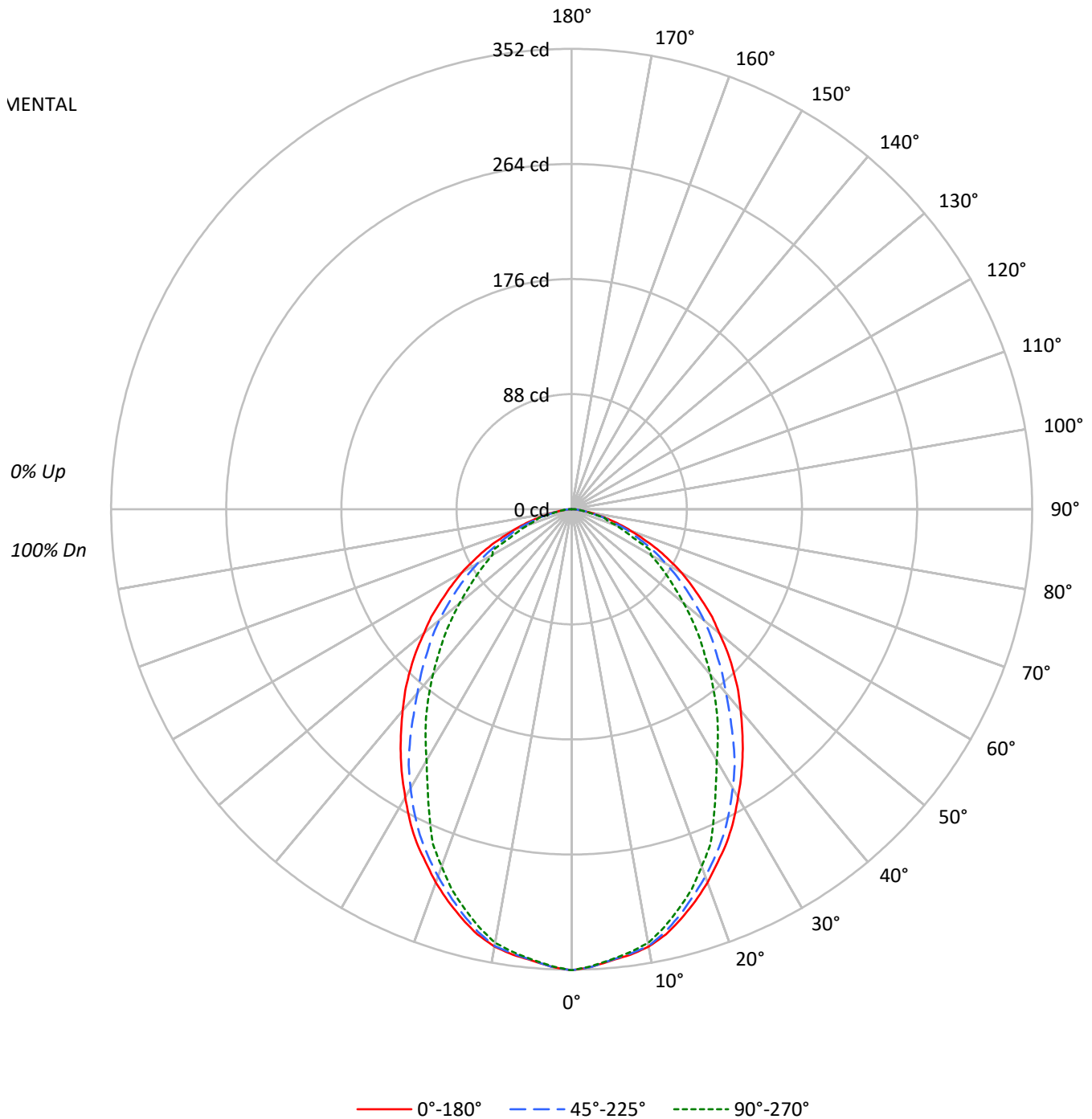
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P558520

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-80-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558520

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-80-88-EDD-90

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°	3794	3794	3794
5°	3743	3739	3734
10°	3711	3705	3679
15°	3611	3574	3524
20°	3478	3422	3329
25°	3335	3263	3058
30°	3161	3059	2756
35°	2993	2828	2549
40°	2823	2577	2318
45°	2661	2382	2096
50°	2463	2210	1870
55°	2278	2004	1674
60°	2088	1789	1500
65°	1836	1566	1330
70°	1514	1372	1130
75°	1202	1052	1102
80°	806	756	707
85°	506	605	704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2661 cd/sqm



TEST NUMBER: P558520

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-80-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	4.7
10°-20°	90.0	13.0
20°-30°	124.7	18.0
30°-40°	132.9	19.2
40°-50°	121.3	17.5
50°-60°	95.0	13.7
60°-70°	61.9	8.9
70°-80°	27.4	4.0
80°-90°	5.9	0.8
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°	247.5	35.8
0°-40°	380.5	55.0
0°-60°	596.8	86.2
0°-90°	692.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	692.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	352	352	352	352	352	
5°	346	346	346	346	346	33
15°	324	324	321	317	316	91
25°	281	279	275	265	258	129
35°	228	226	215	199	194	142
45°	175	171	156	143	138	135
55°	121	118	107	94	89	109
65°	72	68	62	63	52	71
75°	29	27	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



TEST NUMBER: P558520

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-80-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	352.5	352.5	352.5	352.5	352.5
2.5°	350.1	350.1	350.1	349.6	349.6
5°	346.4	346.0	346.0	345.6	345.6
7.5°	343.5	343.1	342.7	342.3	341.5
10°	339.5	339.5	339.0	337.0	336.6
12.5°	332.9	332.5	330.9	328.0	327.2
15°	324.0	324.0	320.7	317.4	316.2
17.5°	314.2	313.8	309.7	306.4	304.8
20°	303.6	302.8	298.7	293.4	290.6
22.5°	291.8	291.8	286.9	280.0	277.1
25°	280.8	279.1	274.7	264.9	257.5
27.5°	268.1	265.7	260.8	247.0	238.4
30°	254.3	253.1	246.1	228.2	221.7
32.5°	241.2	239.2	231.9	213.1	207.8
35°	227.8	226.2	215.2	198.9	194.0
37.5°	214.3	212.3	198.5	185.4	179.3
40°	200.9	198.5	183.4	171.6	165.0
42.5°	188.3	185.0	170.3	157.7	150.4
45°	174.8	171.2	156.5	143.4	137.7
47.5°	161.4	158.1	144.7	131.2	124.7
50°	147.1	144.3	132.0	118.6	111.7
52.5°	135.3	130.8	119.0	105.5	99.8
55°	121.4	117.8	106.8	94.1	89.2
57.5°	108.8	105.1	94.9	83.1	79.1
60°	97.0	91.7	83.1	72.9	69.7
62.5°	83.9	79.9	72.5	64.0	68.1
65°	72.1	68.1	61.5	62.8	52.2
67.5°	59.1	57.1	51.3	45.6	44.0
70°	48.1	45.6	43.6	37.5	35.9
72.5°	38.3	35.9	33.0	29.7	28.5
75°	28.9	26.9	25.3	24.0	26.5
77.5°	20.0	19.2	17.9	16.7	16.3
80°	13.0	12.6	12.2	11.8	11.4
82.5°	7.7	7.7	7.7	7.7	7.7
85°	4.1	4.5	4.9	5.3	5.7
87.5°	2.4	2.4	2.9	3.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)