

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: P559838

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559838
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-12-2-LD4-1LO-35-UNV-82-97-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 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: 865.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

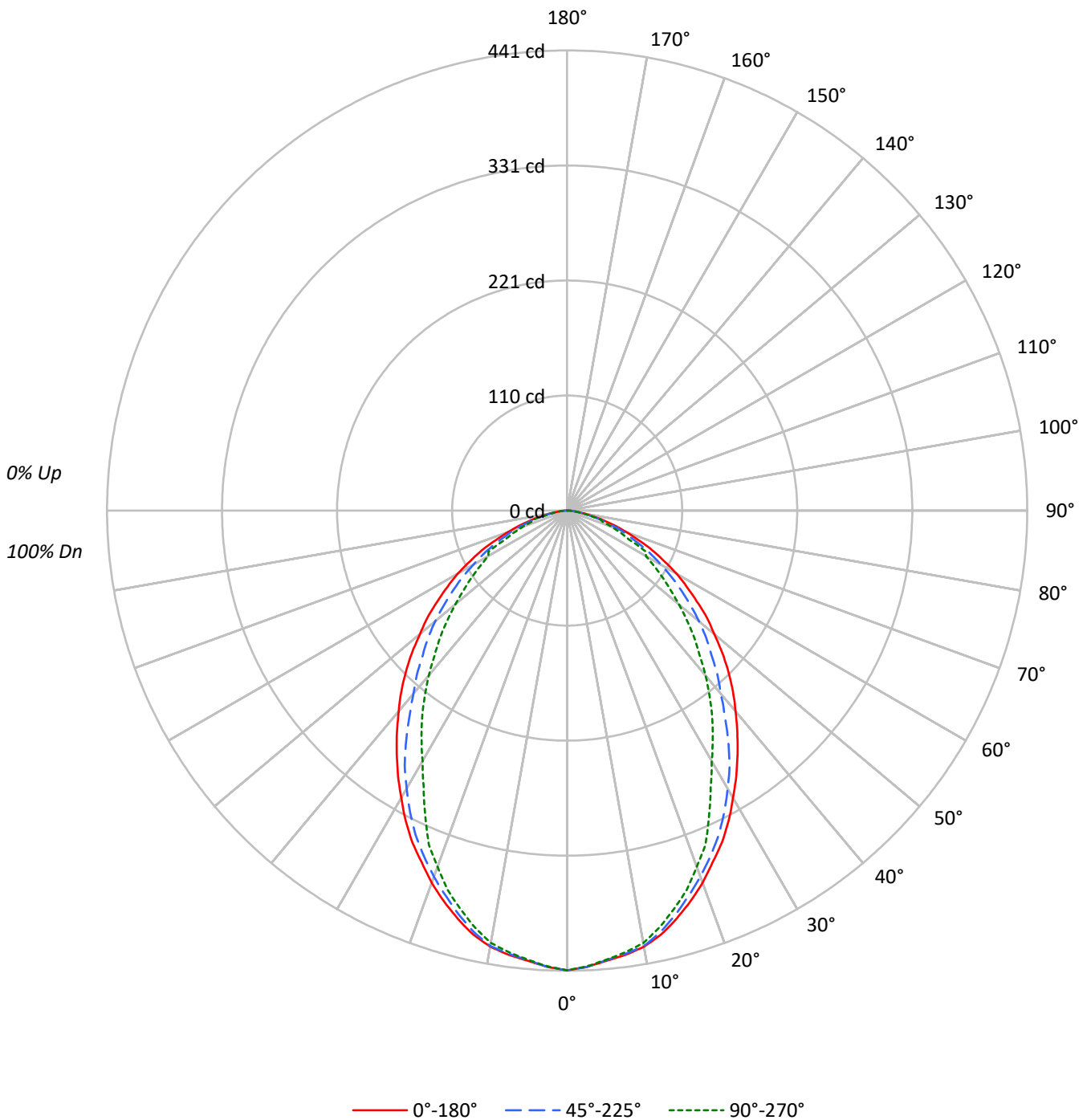
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559838

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-97-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559838

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-97-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	2371	2371	2371
5°	2339	2337	2334
10°	2319	2316	2300
15°	2257	2234	2203
20°	2174	2139	2080
25°	2084	2039	1912
30°	1976	1912	1722
35°	1871	1767	1593
40°	1764	1610	1449
45°	1663	1489	1311
50°	1540	1382	1169
55°	1424	1253	1047
60°	1305	1118	938
65°	1149	979	830
70°	946	858	705
75°	753	657	688
80°	505	474	443
85°	315	377	438

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1663 cd/sqm



TEST NUMBER: P559838

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-97-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.0	4.7
10°-20°	112.6	13.0
20°-30°	155.8	18.0
30°-40°	166.2	19.2
40°-50°	151.6	17.5
50°-60°	118.8	13.7
60°-70°	77.4	8.9
70°-80°	34.3	4.0
80°-90°	7.4	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°	309.4	35.8
0°-40°	475.6	55.0
0°-60°	745.9	86.2
0°-90°	865.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	865.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	441	441	441	441	441	
5°	433	432	432	432	432	41
15°	405	405	401	397	395	114
25°	351	349	343	331	322	161
35°	285	283	269	249	242	178
45°	218	214	196	179	172	168
55°	152	147	134	118	112	136
65°	90	85	77	78	65	89
75°	36	34	32	30	33	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



TEST NUMBER: P559838

CATALOG NUMBER: FSR-12-2-LD4-1LO-35-UNV-82-97-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	440.6	440.6	440.6	440.6	440.6
2.5°	437.6	437.6	437.6	437.1	437.1
5°	433.0	432.5	432.5	432.0	432.0
7.5°	429.4	428.9	428.4	427.9	426.9
10°	424.3	424.3	423.8	421.3	420.8
12.5°	416.2	415.7	413.6	410.1	409.0
15°	405.0	405.0	400.9	396.8	395.3
17.5°	392.7	392.2	387.1	383.1	381.0
20°	379.5	378.5	373.4	366.8	363.2
22.5°	364.7	364.7	358.6	349.9	346.4
25°	351.0	348.9	343.3	331.1	321.9
27.5°	335.2	332.1	326.0	308.7	298.0
30°	317.9	316.3	307.7	285.3	277.1
32.5°	301.6	299.0	289.8	266.4	259.8
35°	284.7	282.7	269.0	248.6	242.5
37.5°	267.9	265.4	248.1	231.8	224.1
40°	251.1	248.1	229.2	214.5	206.3
42.5°	235.3	231.3	212.9	197.1	188.0
45°	218.5	213.9	195.6	179.3	172.2
47.5°	201.7	197.6	180.8	164.0	155.9
50°	183.9	180.3	165.0	148.2	139.6
52.5°	169.1	163.5	148.7	131.9	124.8
55°	151.8	147.2	133.5	117.7	111.6
57.5°	136.0	131.4	118.7	103.9	98.8
60°	121.2	114.6	103.9	91.2	87.1
62.5°	104.9	99.8	90.7	80.0	85.1
65°	90.2	85.1	76.9	78.4	65.2
67.5°	73.9	71.3	64.2	57.1	55.0
70°	60.1	57.1	54.5	46.9	44.8
72.5°	47.9	44.8	41.3	37.2	35.7
75°	36.2	33.6	31.6	30.1	33.1
77.5°	25.0	23.9	22.4	20.9	20.4
80°	16.3	15.8	15.3	14.8	14.3
82.5°	9.7	9.7	9.7	9.7	9.7
85°	5.1	5.6	6.1	6.6	7.1
87.5°	3.1	3.1	3.6	4.1	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)