

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: P559658

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559658
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-LD4-1HI-35-UNV-93-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1572.0 lumens
Efficiency: N/A
Efficacy: 72.8 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

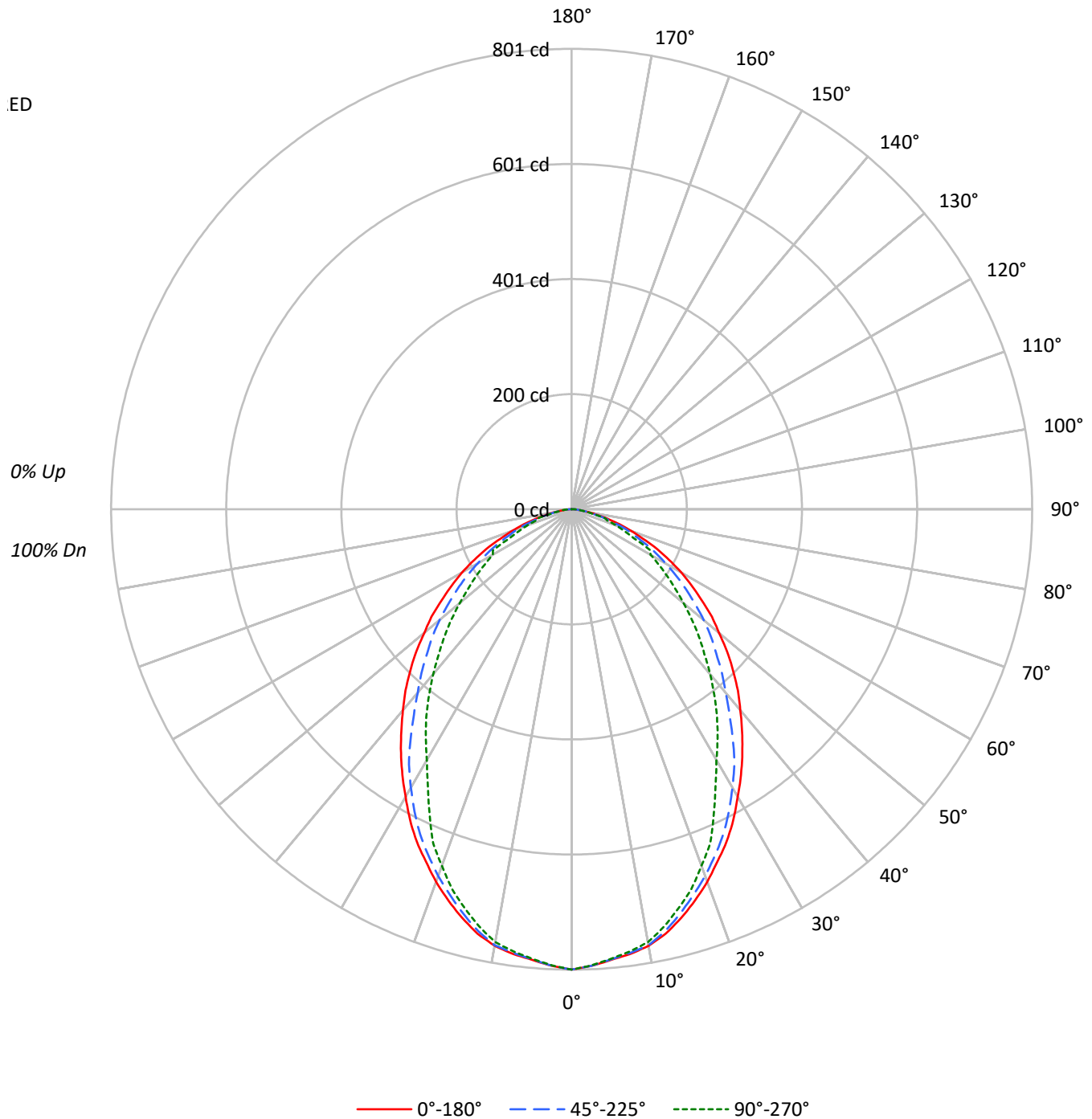
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4310	4310	4310
5°	4251	4246	4241
10°	4214	4209	4179
15°	4101	4059	4003
20°	3950	3887	3780
25°	3787	3705	3475
30°	3590	3475	3130
35°	3400	3211	2895
40°	3207	2927	2634
45°	3022	2706	2382
50°	2798	2511	2123
55°	2589	2275	1902
60°	2371	2032	1704
65°	2087	1780	1509
70°	1718	1559	1282
75°	1366	1194	1252
80°	917	862	803
85°	574	685	803

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3022 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	4.7
10°-20°	204.6	13.0
20°-30°	283.2	18.0
30°-40°	302.0	19.2
40°-50°	275.5	17.5
50°-60°	215.8	13.7
60°-70°	140.7	8.9
70°-80°	62.3	4.0
80°-90°	13.4	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°	562.3	35.8
0°-40°	864.3	55.0
0°-60°	1355.6	86.2
0°-90°	1572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1572.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	787	786	786	785	785	75
15°	736	736	728	721	718	207
25°	638	634	624	602	585	293
35°	518	514	489	452	441	324
45°	397	389	356	326	313	306
55°	276	268	242	214	203	247
65°	164	155	140	143	118	161
75°	66	61	57	55	60	70
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°	800.8	800.8	800.8	800.8	800.8
2.5°	795.2	795.2	795.2	794.3	794.3
5°	786.9	785.9	785.9	785.0	785.0
7.5°	780.4	779.5	778.5	777.6	775.8
10°	771.1	771.1	770.2	765.6	764.7
12.5°	756.3	755.4	751.7	745.2	743.4
15°	736.0	736.0	728.5	721.1	718.4
17.5°	713.7	712.8	703.6	696.1	692.4
20°	689.7	687.8	678.6	666.5	660.0
22.5°	662.8	662.8	651.7	636.0	629.5
25°	637.8	634.1	623.9	601.7	585.1
27.5°	609.1	603.6	592.5	561.0	541.6
30°	577.7	574.9	559.1	518.4	503.6
32.5°	548.0	543.4	526.7	484.2	472.1
35°	517.5	513.8	488.8	451.8	440.6
37.5°	486.9	482.3	450.8	421.2	407.3
40°	456.4	450.8	416.6	389.7	374.9
42.5°	427.7	420.3	387.0	358.3	341.6
45°	397.1	388.8	355.5	325.9	312.9
47.5°	366.6	359.2	328.6	298.1	283.3
50°	334.2	327.7	299.9	269.4	253.6
52.5°	307.3	297.2	270.3	239.8	226.8
55°	275.9	267.5	242.5	213.8	202.7
57.5°	247.2	238.8	215.7	188.8	179.6
60°	220.3	208.3	188.8	165.7	158.3
62.5°	190.7	181.4	164.8	145.3	154.6
65°	163.9	154.6	139.8	142.6	118.5
67.5°	134.2	129.6	116.6	103.7	100.0
70°	109.2	103.7	99.1	85.2	81.5
72.5°	87.0	81.5	75.0	67.6	64.8
75°	65.7	61.1	57.4	54.6	60.2
77.5°	45.4	43.5	40.7	38.0	37.0
80°	29.6	28.7	27.8	26.8	25.9
82.5°	17.6	17.6	17.6	17.6	17.6
85°	9.3	10.2	11.1	12.0	13.0
87.5°	5.6	5.6	6.5	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)