

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: P559105

Luminaire Tested: FSR-12-1-LD4-2HI-40-UNV-81-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559105
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-LD4-2HI-40-UNV-81-84-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1852.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

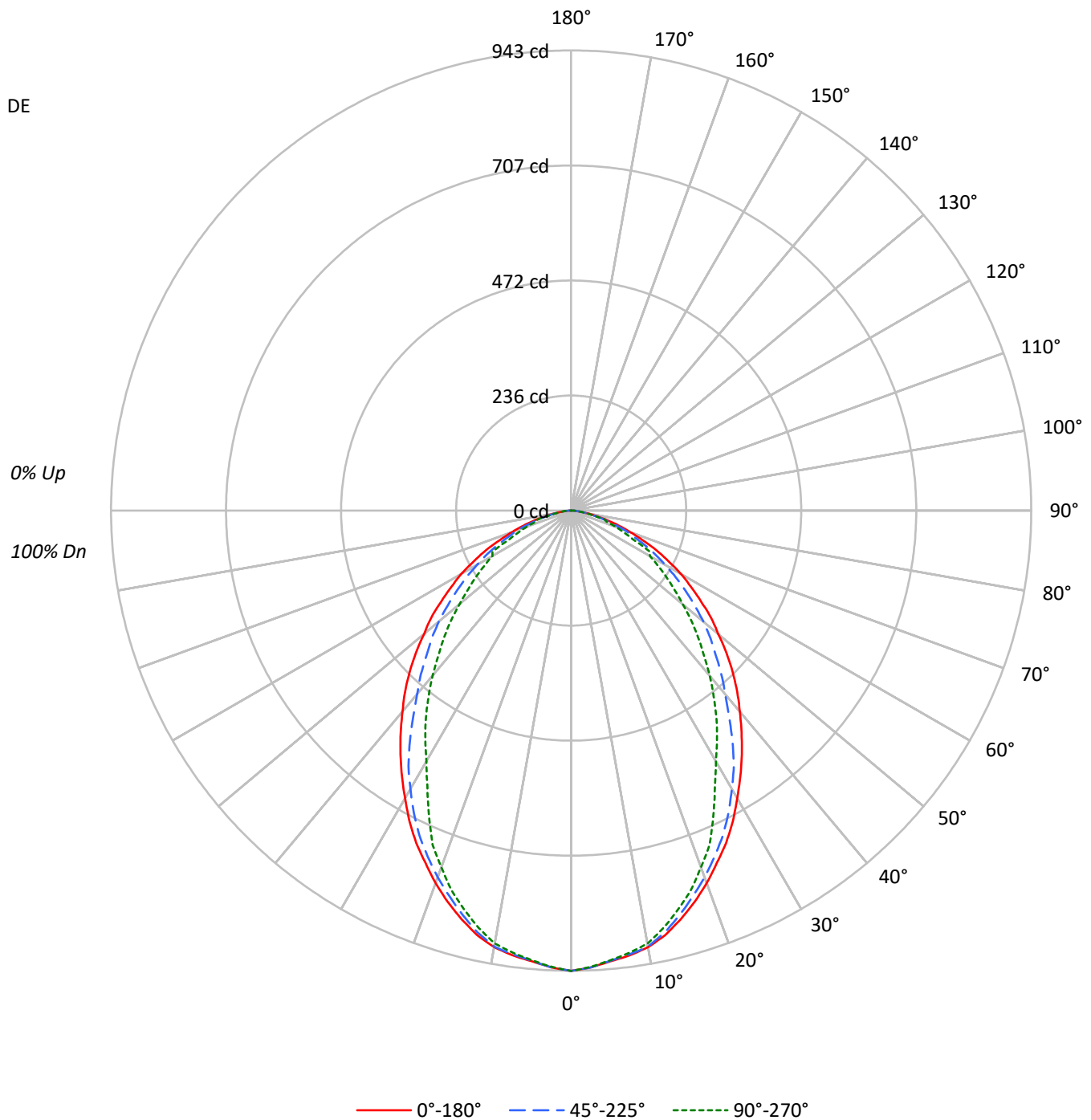
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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																												
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°	10155	10155	10155
5°	10016	10004	9992
10°	9930	9918	9846
15°	9662	9565	9431
20°	9307	9157	8907
25°	8924	8731	8187
30°	8458	8187	7374
35°	8012	7566	6821
40°	7555	6896	6206
45°	7123	6375	5611
50°	6593	5918	5004
55°	6099	5362	4481
60°	5589	4790	4015
65°	4916	4195	3556
70°	4050	3673	3021
75°	3219	2811	2949
80°	2163	2027	1891
85°	1346	1618	1890

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7123 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	4.7
10°-20°	241.0	13.0
20°-30°	333.7	18.0
30°-40°	355.8	19.2
40°-50°	324.6	17.5
50°-60°	254.3	13.7
60°-70°	165.7	8.9
70°-80°	73.4	4.0
80°-90°	15.7	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°	662.5	35.8
0°-40°	1018.2	55.0
0°-60°	1597.1	86.2
0°-90°	1852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	927	926	926	925	925	88
15°	867	867	858	850	846	244
25°	751	747	735	709	689	345
35°	610	605	576	532	519	381
45°	468	458	419	384	369	360
55°	325	315	286	252	239	292
65°	193	182	165	168	140	190
75°	77	72	68	64	71	83
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.4	943.4	943.4	943.4	943.4
2.5°	936.8	936.8	936.8	935.7	935.7
5°	927.0	925.9	925.9	924.8	924.8
7.5°	919.4	918.3	917.2	916.1	913.9
10°	908.5	908.5	907.4	901.9	900.8
12.5°	891.0	889.9	885.6	877.9	875.8
15°	867.0	867.0	858.3	849.6	846.3
17.5°	840.9	839.8	828.9	820.1	815.8
20°	812.5	810.3	799.4	785.2	777.6
22.5°	780.9	780.9	767.8	749.3	741.6
25°	751.4	747.1	735.1	708.9	689.3
27.5°	717.6	711.1	698.0	660.9	638.0
30°	680.5	677.3	658.7	610.7	593.3
32.5°	645.6	640.2	620.6	570.4	556.2
35°	609.7	605.3	575.8	532.2	519.1
37.5°	573.7	568.2	531.1	496.2	479.9
40°	537.7	531.1	490.8	459.1	441.7
42.5°	503.9	495.1	455.9	422.1	402.4
45°	467.9	458.1	418.8	383.9	368.6
47.5°	431.9	423.2	387.2	351.2	333.7
50°	393.7	386.1	353.4	317.4	298.8
52.5°	362.1	350.1	318.5	282.5	267.2
55°	325.0	315.2	285.7	251.9	238.8
57.5°	291.2	281.4	254.1	222.5	211.6
60°	259.6	245.4	222.5	195.2	186.5
62.5°	224.7	213.8	194.1	171.2	182.1
65°	193.0	182.1	164.7	168.0	139.6
67.5°	158.1	152.7	137.4	122.1	117.8
70°	128.7	122.1	116.7	100.3	96.0
72.5°	102.5	96.0	88.3	79.6	76.3
75°	77.4	72.0	67.6	64.3	70.9
77.5°	53.4	51.3	48.0	44.7	43.6
80°	34.9	33.8	32.7	31.6	30.5
82.5°	20.7	20.7	20.7	20.7	20.7
85°	10.9	12.0	13.1	14.2	15.3
87.5°	6.5	6.5	7.6	8.7	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)