

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: P560366

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-93-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560366
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-LD4-2HI-50-UNV-93-97-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3202.0 lumens
Efficiency: N/A
Efficacy: 74.1 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

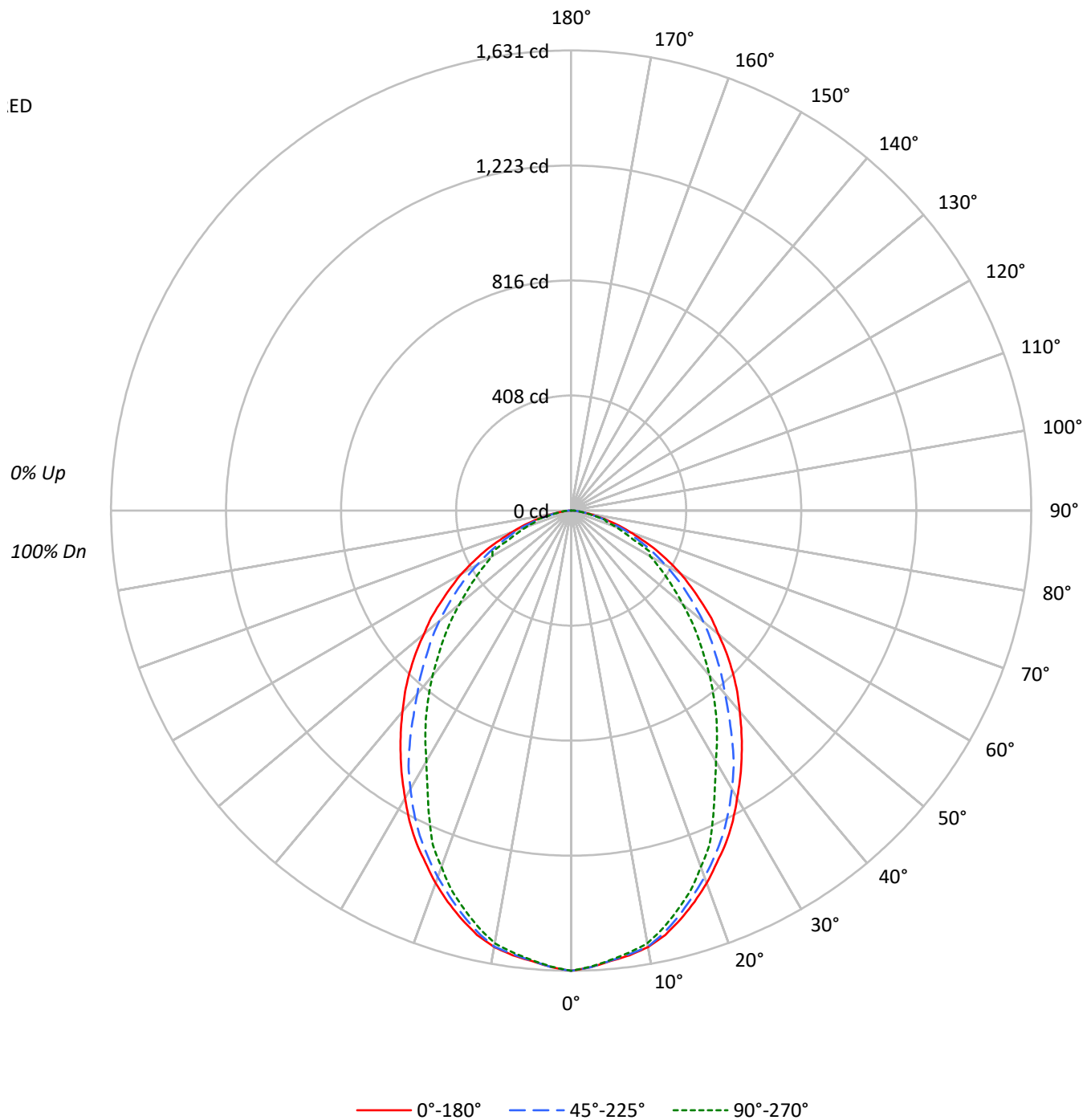
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8779	8779	8779
5°	8659	8649	8639
10°	8584	8573	8512
15°	8353	8269	8153
20°	8046	7916	7700
25°	7715	7547	7077
30°	7312	7078	6375
35°	6926	6541	5897
40°	6531	5961	5365
45°	6157	5511	4851
50°	5699	5115	4326
55°	5272	4635	3874
60°	4831	4141	3470
65°	4251	3626	3074
70°	3501	3175	2611
75°	2784	2431	2549
80°	1869	1754	1636
85°	1167	1396	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6157 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.8	4.7
10°-20°	416.7	13.0
20°-30°	576.9	18.0
30°-40°	615.1	19.2
40°-50°	561.2	17.5
50°-60°	439.6	13.7
60°-70°	286.5	8.9
70°-80°	126.9	4.0
80°-90°	27.2	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°	1145.4	35.8
0°-40°	1760.5	55.0
0°-60°	2761.3	86.2
0°-90°	3202.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3202.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1631	1631	1631	1631	1631	
5°	1603	1601	1601	1599	1599	152
15°	1499	1499	1484	1469	1463	421
25°	1299	1292	1271	1226	1192	596
35°	1054	1046	996	920	898	659
45°	809	792	724	664	637	623
55°	562	545	494	436	413	504
65°	334	315	285	290	241	329
75°	134	124	117	111	123	143
85°	19	21	23	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1631.1	1631.1	1631.1	1631.1	1631.1
2.5°	1619.7	1619.7	1619.7	1617.9	1617.9
5°	1602.8	1600.9	1600.9	1599.0	1599.0
7.5°	1589.6	1587.7	1585.8	1583.9	1580.1
10°	1570.7	1570.7	1568.8	1559.4	1557.5
12.5°	1540.5	1538.7	1531.1	1517.9	1514.1
15°	1499.1	1499.1	1484.0	1468.9	1463.2
17.5°	1453.8	1451.9	1433.1	1418.0	1410.4
20°	1404.8	1401.0	1382.2	1357.6	1344.4
22.5°	1350.1	1350.1	1327.5	1295.4	1282.2
25°	1299.2	1291.6	1270.9	1225.6	1191.7
27.5°	1240.7	1229.4	1206.8	1142.7	1103.1
30°	1176.6	1171.0	1138.9	1055.9	1025.8
32.5°	1116.3	1106.9	1072.9	986.2	961.7
35°	1054.1	1046.5	995.6	920.2	897.6
37.5°	991.8	982.4	918.3	858.0	829.7
40°	929.6	918.3	848.5	793.8	763.7
42.5°	871.2	856.1	788.2	729.7	695.8
45°	808.9	792.0	724.1	663.7	637.3
47.5°	746.7	731.6	669.4	607.2	577.0
50°	680.7	667.5	610.9	548.7	516.7
52.5°	626.0	605.3	550.6	488.4	462.0
55°	561.9	544.9	494.0	435.6	412.9
57.5°	503.5	486.5	439.3	384.7	365.8
60°	448.8	424.3	384.7	337.5	322.4
62.5°	388.4	369.6	335.6	296.0	314.9
65°	333.8	314.9	284.7	290.4	241.4
67.5°	273.4	264.0	237.6	211.2	203.6
70°	222.5	211.2	201.8	173.5	165.9
72.5°	177.2	165.9	152.7	137.6	132.0
75°	133.9	124.5	116.9	111.3	122.6
77.5°	92.4	88.6	83.0	77.3	75.4
80°	60.3	58.5	56.6	54.7	52.8
82.5°	35.8	35.8	35.8	35.8	35.8
85°	18.9	20.7	22.6	24.5	26.4
87.5°	11.3	11.3	13.2	15.1	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)