

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: P560689

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560689
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-LD4-2STD-50-UNV-80-84-EDD
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3133.0 lumens
Efficiency: N/A
Efficacy: 94.1 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

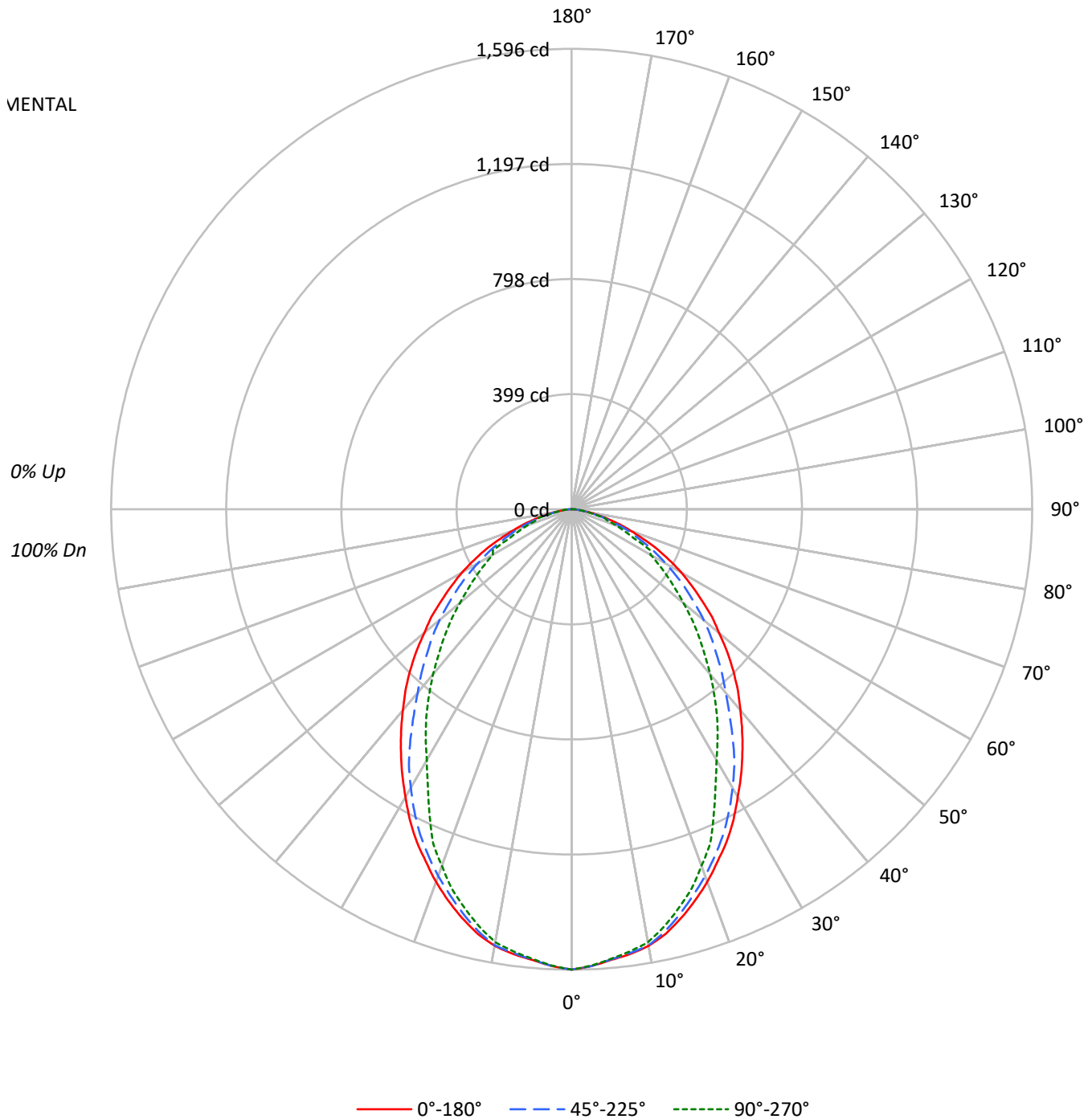
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8589	8589	8589
5°	8472	8463	8452
10°	8399	8389	8329
15°	8173	8090	7977
20°	7872	7746	7534
25°	7549	7384	6924
30°	7155	6925	6238
35°	6776	6400	5770
40°	6391	5833	5250
45°	6024	5393	4746
50°	5576	5005	4232
55°	5159	4536	3792
60°	4726	4052	3396
65°	4159	3548	3008
70°	3426	3106	2555
75°	2724	2379	2493
80°	1829	1714	1602
85°	1136	1365	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6024 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.6	4.7
10°-20°	407.7	13.0
20°-30°	564.4	18.0
30°-40°	601.9	19.2
40°-50°	549.1	17.5
50°-60°	430.2	13.7
60°-70°	280.4	8.9
70°-80°	124.2	4.0
80°-90°	26.7	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°	1120.7	35.8
0°-40°	1722.6	55.0
0°-60°	2701.8	86.2
0°-90°	3133.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3133.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1596	1596	1596	1596	1596	
5°	1568	1566	1566	1564	1564	149
15°	1467	1467	1452	1437	1432	412
25°	1271	1264	1244	1199	1166	584
35°	1031	1024	974	900	878	645
45°	792	775	708	649	624	610
55°	550	533	483	426	404	493
65°	327	308	279	284	236	322
75°	131	122	114	109	120	140
85°	18	20	22	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1595.9	1595.9	1595.9	1595.9	1595.9
2.5°	1584.8	1584.8	1584.8	1583.0	1583.0
5°	1568.2	1566.4	1566.4	1564.5	1564.5
7.5°	1555.3	1553.5	1551.6	1549.8	1546.1
10°	1536.9	1536.9	1535.0	1525.8	1524.0
12.5°	1507.3	1505.5	1498.1	1485.2	1481.5
15°	1466.8	1466.8	1452.0	1437.2	1431.7
17.5°	1422.5	1420.6	1402.2	1387.4	1380.0
20°	1374.5	1370.8	1352.4	1328.4	1315.5
22.5°	1321.0	1321.0	1298.9	1267.5	1254.6
25°	1271.2	1263.8	1243.5	1199.2	1166.0
27.5°	1214.0	1202.9	1180.8	1118.1	1079.3
30°	1151.3	1145.7	1114.4	1033.2	1003.7
32.5°	1092.2	1083.0	1049.8	964.9	940.9
35°	1031.3	1024.0	974.1	900.4	878.2
37.5°	970.5	961.2	898.5	839.5	811.8
40°	909.6	898.5	830.2	776.7	747.2
42.5°	852.4	837.6	771.2	714.0	680.8
45°	791.5	774.9	708.5	649.4	623.6
47.5°	730.6	715.9	655.0	594.1	564.6
50°	666.0	653.1	597.8	536.9	505.5
52.5°	612.5	592.2	538.7	477.9	452.0
55°	549.8	533.2	483.4	426.2	404.1
57.5°	492.6	476.0	429.9	376.4	357.9
60°	439.1	415.1	376.4	330.3	315.5
62.5°	380.1	361.6	328.4	289.7	308.1
65°	326.6	308.1	278.6	284.1	236.2
67.5°	267.5	258.3	232.5	206.6	199.3
70°	217.7	206.6	197.4	169.7	162.4
72.5°	173.4	162.4	149.4	134.7	129.1
75°	131.0	121.8	114.4	108.9	119.9
77.5°	90.4	86.7	81.2	75.6	73.8
80°	59.0	57.2	55.3	53.5	51.7
82.5°	35.1	35.1	35.1	35.1	35.1
85°	18.4	20.3	22.1	24.0	25.8
87.5°	11.1	11.1	12.9	14.8	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)