

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: P973961

Luminaire Tested: FLR2-22-20HE-L940-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973961
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-22-20HE-L940-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

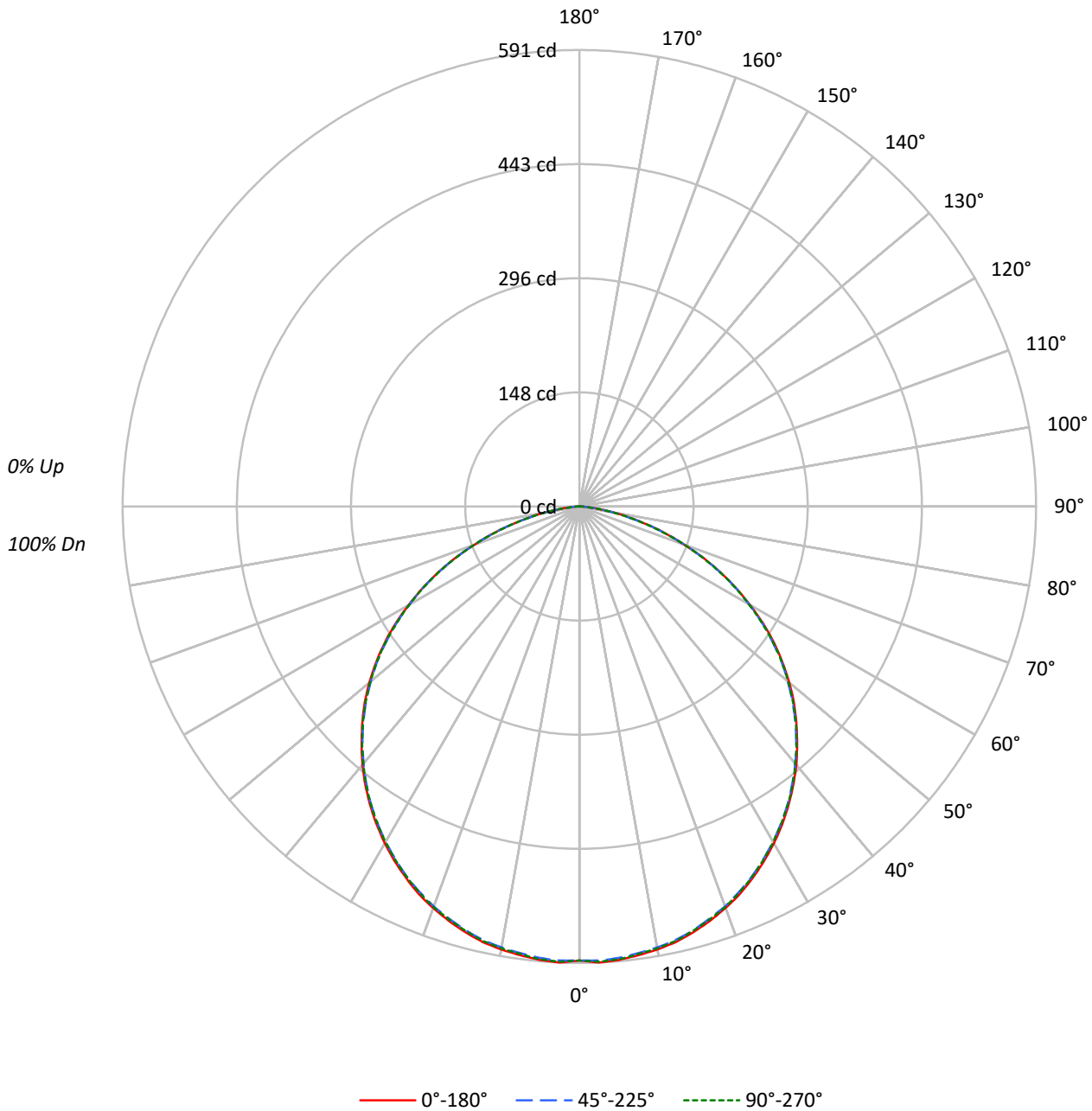
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1643.8 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 14.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor:
Total Harmonic Distortion (THDi):
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P973961
CATALOG NUMBER: FLR2-22-20HE-L940-CA080

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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						100														
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85						85														
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71						71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60						60														
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51						51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44						44														
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39						39														
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34						34														
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30						30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27						27														
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25						25														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1582	1582	1582
5°	1592	1585	1590
10°	1591	1584	1587
15°	1590	1583	1585
20°	1584	1578	1580
25°	1576	1570	1571
30°	1565	1558	1559
35°	1551	1545	1546
40°	1534	1527	1528
45°	1512	1505	1507
50°	1485	1474	1477
55°	1443	1431	1436
60°	1372	1366	1366
65°	1280	1279	1273
70°	1134	1140	1137
75°	955	947	940
80°	687	676	669
85°	358	358	349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1512 cd/sqm



TEST NUMBER: P973961
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.7	3.4
10°-20°	160.1	9.7
20°-30°	243.2	14.8
30°-40°	294.0	17.9
40°-50°	305.2	18.6
50°-60°	272.8	16.6
60°-70°	198.4	12.1
70°-80°	97.5	5.9
80°-90°	16.9	1.0
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°	459.0	27.9
0°-40°	753.0	45.8
0°-60°	1331.0	81.0
0°-90°	1643.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1643.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	589	582	587	584	588	56
15°	571	564	568	567	569	161
25°	531	525	529	528	529	245
35°	472	469	470	470	470	295
45°	397	395	395	396	396	306
55°	308	306	305	306	306	274
65°	201	202	201	201	200	198
75°	92	93	91	92	90	98
85°	12	12	12	12	11	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	587.8	587.8	587.8	587.8	587.8
2.5°	591.1	584.2	588.5	586.0	590.0
5°	589.3	582.4	586.7	584.5	588.5
7.5°	586.0	579.1	583.4	581.3	584.5
10°	582.4	575.1	579.8	577.6	580.9
12.5°	577.6	570.7	575.1	573.3	576.2
15°	570.7	564.2	568.2	566.7	568.9
17.5°	562.4	555.9	559.8	558.8	560.6
20°	553.3	547.1	551.1	550.0	551.9
22.5°	543.1	536.6	540.2	539.5	541.0
25°	530.8	525.0	528.6	527.5	529.0
27.5°	517.7	512.3	515.2	515.2	515.9
30°	503.6	498.5	501.4	501.4	501.8
32.5°	488.3	484.3	486.1	486.5	486.5
35°	472.0	468.7	470.2	470.5	470.5
37.5°	454.9	451.7	452.7	453.5	453.5
40°	436.8	433.9	434.6	435.3	434.9
42.5°	417.2	415.0	415.3	416.1	416.1
45°	397.2	395.4	395.4	396.1	396.1
47.5°	376.9	375.0	374.3	375.0	375.0
50°	354.7	352.9	352.2	352.9	352.9
52.5°	331.5	329.7	329.7	329.7	330.0
55°	307.5	305.7	305.0	305.7	306.1
57.5°	282.1	281.4	280.3	280.6	279.6
60°	254.9	254.9	253.8	254.5	253.8
62.5°	228.4	229.1	228.0	228.0	227.3
65°	201.1	201.9	200.8	200.8	200.0
67.5°	173.2	174.3	172.8	172.8	172.1
70°	144.1	146.3	144.9	145.2	144.5
72.5°	118.0	119.1	117.6	117.6	116.9
75°	91.9	92.6	91.1	91.5	90.4
77.5°	66.1	67.2	65.7	66.1	65.7
80°	44.3	44.7	43.6	43.9	43.2
82.5°	25.8	26.1	25.8	25.4	25.1
85°	11.6	12.0	11.6	11.6	11.3
87.5°	2.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)