

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: NEO-RAY

Report Number: P1055595

Luminaire Tested: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055595  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

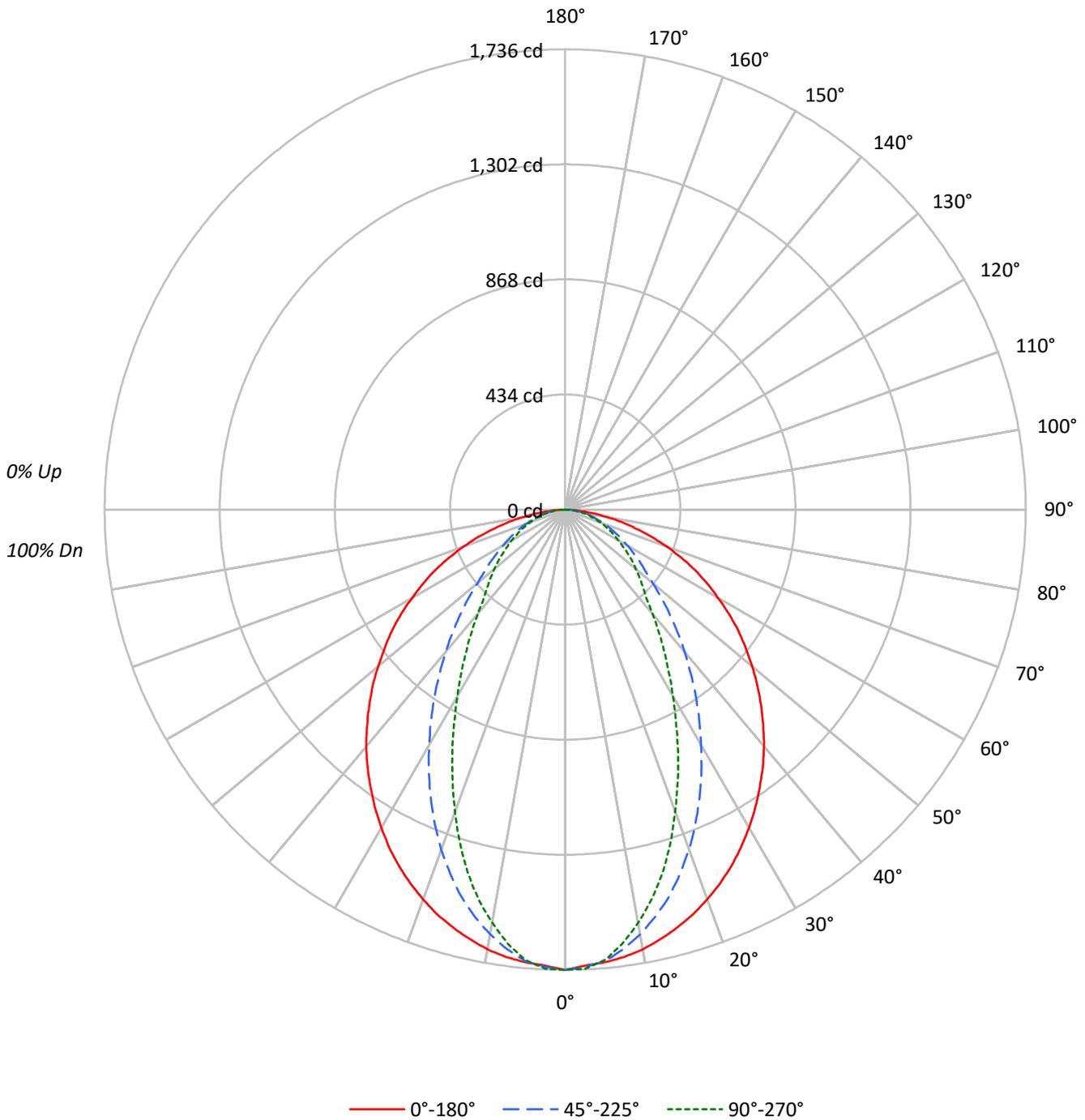
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3044.9 lumens  
Efficiency: N/A  
Efficacy: 72.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
Input Voltage (V): 120  
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

TEST NUMBER: P1055595

CATALOG NUMBER: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1055595

CATALOG NUMBER: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-W

**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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	20931	20931	20931
5°	20744	20696	20649
10°	20619	19918	19378
15°	20373	18866	17699
20°	20075	17509	15560
25°	19727	15943	13387
30°	19288	14263	11317
35°	18825	12613	9556
40°	18353	11015	8031
45°	17801	9499	7084
50°	17243	8086	6503
55°	16732	7206	6005
60°	16030	6513	5604
65°	15374	5965	5261
70°	14326	5492	4942
75°	12824	5082	4658
80°	10998	4687	4325
85°	7719	4316	4136

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17801 cd/sqm



TEST NUMBER: P1055595

CATALOG NUMBER: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.9	5.3
10°-20°	425.8	14.0
20°-30°	560.9	18.4
30°-40°	569.3	18.7
40°-50°	494.8	16.3
50°-60°	387.7	12.7
60°-70°	263.4	8.7
70°-80°	142.7	4.7
80°-90°	39.3	1.3
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°	1147.6	37.7
0°-40°	1716.9	56.4
0°-60°	2599.4	85.4
0°-90°	3044.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3044.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1736	1736	1736	1736	1736	
5°	1714	1735	1710	1695	1706	163
15°	1632	1609	1512	1438	1418	460
25°	1483	1393	1198	1049	1006	683
35°	1279	1127	857	693	649	800
45°	1044	838	557	430	416	806
55°	796	553	343	292	286	711
65°	539	299	209	187	184	532
75°	275	138	109	101	100	294
85°	56	34	31	29	30	70
90°	0	0	0	0	0	



TEST NUMBER: P1055595

CATALOG NUMBER: S123R3DR-S1165D935-X4F0-XX-UDD-FLL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1736.1	1736.1	1736.1	1736.1	1736.1
2.5°	1721.8	1743.9	1727.0	1728.3	1733.5
5°	1714.0	1734.8	1710.1	1694.6	1706.2
7.5°	1702.4	1717.9	1672.5	1647.8	1651.7
10°	1684.2	1689.4	1627.0	1588.1	1582.9
12.5°	1659.5	1650.4	1572.5	1515.4	1506.3
15°	1632.2	1608.9	1511.5	1437.5	1418.0
17.5°	1601.1	1562.1	1440.1	1349.2	1319.3
20°	1564.7	1510.2	1364.7	1249.2	1212.8
22.5°	1525.8	1455.6	1282.9	1146.6	1108.9
25°	1482.9	1393.3	1198.5	1049.2	1006.3
27.5°	1436.2	1331.0	1112.8	953.1	905.1
30°	1385.5	1266.1	1024.5	859.6	812.9
32.5°	1333.6	1197.2	940.1	772.6	727.2
35°	1279.0	1127.1	857.0	693.4	649.3
37.5°	1223.2	1055.7	776.5	618.1	576.5
40°	1166.1	983.0	699.9	548.0	510.3
42.5°	1105.0	910.3	625.9	481.7	453.2
45°	1044.0	837.5	557.1	429.8	415.5
47.5°	983.0	763.5	492.1	393.5	380.5
50°	919.3	692.1	431.1	359.7	346.7
52.5°	857.0	622.0	380.5	327.2	318.1
55°	796.0	553.2	342.8	292.2	285.7
57.5°	732.4	485.6	305.2	264.9	257.1
60°	664.8	420.7	270.1	236.3	232.4
62.5°	603.8	359.7	238.9	211.7	207.8
65°	538.9	298.7	209.1	187.0	184.4
67.5°	472.7	248.0	181.8	163.6	162.3
70°	406.4	209.1	155.8	141.5	140.2
72.5°	341.5	172.7	131.2	122.1	119.5
75°	275.3	137.6	109.1	101.3	100.0
77.5°	215.6	106.5	87.0	81.8	80.5
80°	158.4	79.2	67.5	63.6	62.3
82.5°	103.9	54.5	48.0	45.4	45.4
85°	55.8	33.8	31.2	28.6	29.9
87.5°	19.5	14.3	14.3	13.0	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)