

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: P1055653

Luminaire Tested: S123R3DR-S560D950-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055653  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123R3DR-S560D950-X4F0-XX-UDD-FLL-B  
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

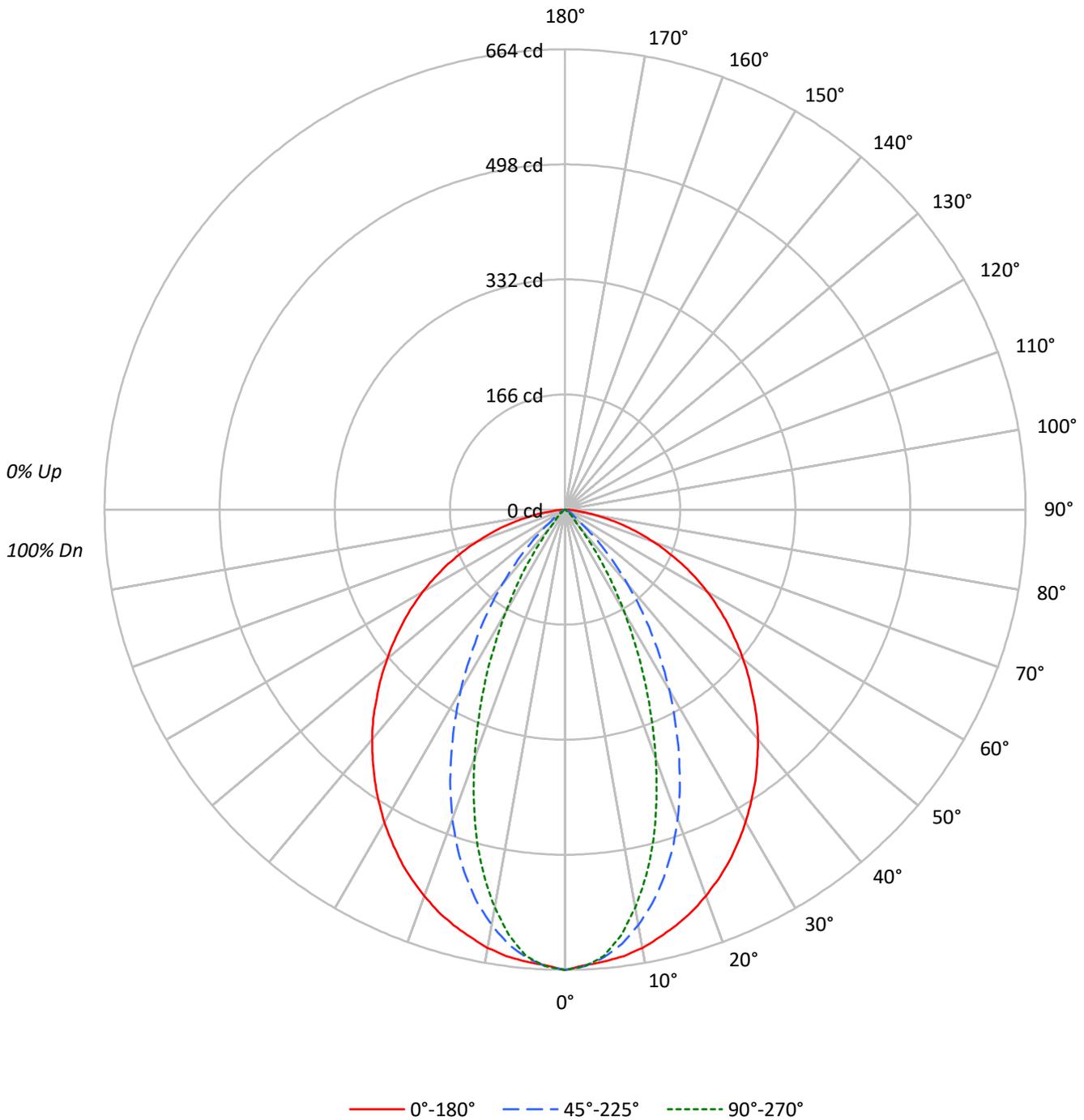
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 777.3 lumens  
Efficiency: N/A  
Efficacy: 40.7 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86  
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
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

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	57	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

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

	0°	45°	90°
0°	8007	8007	8007
5°	7921	7846	7821
10°	7861	7447	7135
15°	7747	6862	6148
20°	7611	6090	4897
25°	7451	5160	3610
30°	7250	4182	2369
35°	7037	3184	1298
40°	6808	2202	444
45°	6542	1280	259
50°	6280	505	156
55°	6010	319	71
60°	5698	200	34
65°	5306	97	20
70°	4759	49	25
75°	4043	33	33
80°	3013	49	0
85°	1148	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6542 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.9	7.8
10°-20°	154.5	19.9
20°-30°	184.3	23.7
30°-40°	156.4	20.1
40°-50°	106.3	13.7
50°-60°	65.9	8.5
60°-70°	33.4	4.3
70°-80°	13.6	1.8
80°-90°	2.1	0.3
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°	399.7	51.4
0°-40°	556.1	71.5
0°-60°	728.2	93.7
0°-90°	777.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	777.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	664	664	664	664	664	
5°	654	661	648	644	646	62
15°	621	605	550	506	493	175
25°	560	508	388	300	271	258
35°	478	384	216	116	88	299
45°	384	252	75	19	15	296
55°	286	127	15	6	3	255
65°	186	31	3	1	1	184
75°	87	6	1	1	1	92
85°	8	0	0	1	0	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	664.1	664.1	664.1	664.1	664.1
2.5°	657.9	666.9	659.3	658.6	659.3
5°	654.5	660.7	648.3	643.5	646.2
7.5°	649.7	652.4	631.7	619.3	619.3
10°	642.1	640.0	608.3	587.7	582.8
12.5°	631.7	623.5	582.1	549.8	540.8
15°	620.7	604.9	549.8	506.4	492.6
17.5°	608.3	584.2	514.6	458.1	438.2
20°	593.2	560.8	474.7	405.8	381.7
22.5°	577.3	535.3	432.6	352.0	325.2
25°	560.1	507.7	387.9	299.7	271.4
27.5°	540.8	478.8	343.8	249.4	218.4
30°	520.8	448.5	300.4	201.2	170.2
32.5°	499.5	416.8	257.0	157.1	128.1
35°	478.1	383.7	216.3	116.4	88.2
37.5°	455.4	350.7	177.1	80.6	55.8
40°	432.6	318.3	139.9	51.0	28.2
42.5°	409.2	284.5	106.1	25.5	19.3
45°	383.7	251.5	75.1	18.6	15.2
47.5°	359.6	219.8	49.6	15.2	11.7
50°	334.8	188.1	26.9	11.0	8.3
52.5°	310.0	157.8	19.3	8.3	5.5
55°	285.9	126.8	15.2	5.5	3.4
57.5°	261.1	99.9	11.7	3.4	2.1
60°	236.3	73.7	8.3	2.1	1.4
62.5°	211.5	51.0	5.5	1.4	0.7
65°	186.0	31.0	3.4	0.7	0.7
67.5°	159.8	21.4	2.1	0.7	0.7
70°	135.0	15.2	1.4	0.7	0.7
72.5°	110.2	9.6	0.7	0.7	0.0
75°	86.8	5.5	0.7	0.7	0.7
77.5°	64.1	2.1	0.7	0.7	0.0
80°	43.4	0.7	0.7	0.7	0.0
82.5°	24.1	0.0	0.7	0.7	0.0
85°	8.3	0.0	0.0	0.7	0.0
87.5°	0.0	0.0	0.0	0.7	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)