

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: P1059123

Luminaire Tested: S123RDR-S1165D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059123  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D927-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

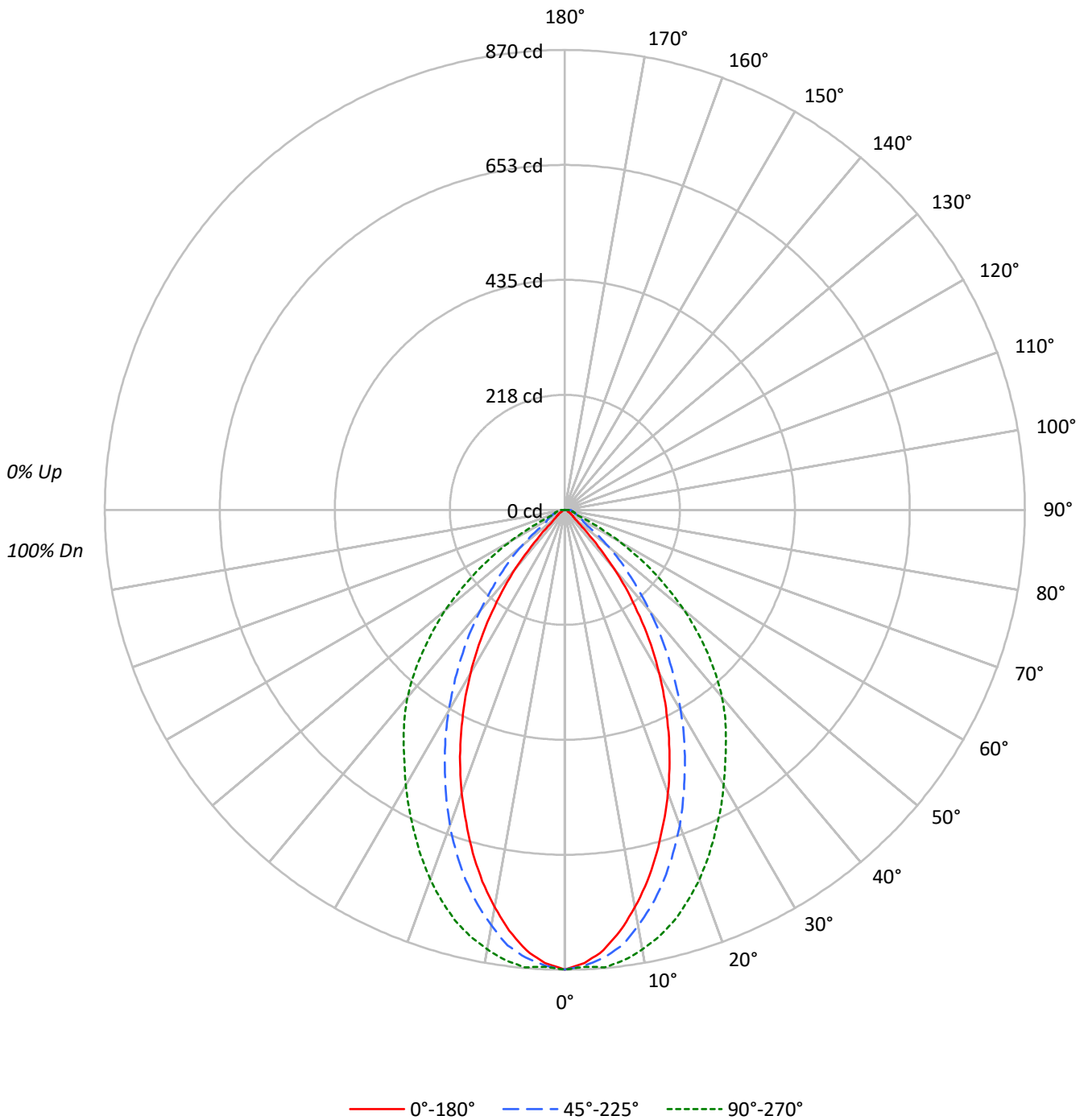
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1044.1 lumens  
Efficiency: N/A  
Efficacy: 25.0 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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: P1059123

CATALOG NUMBER: S123RDR-S1165D927-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059123

CATALOG NUMBER: S123RDR-S1165D927-X4F0-XX-UDD-BVL-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	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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

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

	0°	45°	90°
0°	10212	10212	10212
5°	9860	10023	10237
10°	9102	9525	10069
15°	8169	8808	9767
20°	7126	7940	9297
25°	6012	6959	8721
30°	4835	5950	8150
35°	3538	4898	7618
40°	2207	3818	7094
45°	835	2846	6320
50°	396	1962	5385
55°	305	1077	4164
60°	214	914	2738
65°	158	795	1142
70°	158	745	745
75°	209	776	776
80°	311	926	852
85°	620	1536	1226

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6320 cd/sqm



TEST NUMBER: P1059123

CATALOG NUMBER: S123RDR-S1165D927-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.8	7.6
10°-20°	204.7	19.6
20°-30°	253.4	24.3
30°-40°	227.2	21.8
40°-50°	148.9	14.3
50°-60°	74.6	7.1
60°-70°	29.1	2.8
70°-80°	16.4	1.6
80°-90°	10.1	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°	537.9	51.5
0°-40°	765.1	73.3
0°-60°	988.6	94.7
0°-90°	1044.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1044.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	836	850	850	859	868	78
15°	672	699	724	772	803	187
25°	464	493	537	614	673	212
35°	247	280	342	445	531	154
45°	50	81	171	294	381	48
55°	15	18	53	144	203	14
65°	6	17	29	38	41	6
75°	5	17	17	17	17	5
85°	5	11	11	11	9	4
90°	0	0	0	0	0	



TEST NUMBER: P1059123

CATALOG NUMBER: S123RDR-S1165D927-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	869.7	869.7	869.7	869.7	869.7
2.5°	858.3	870.8	862.8	864.0	865.1
5°	836.5	850.3	850.3	859.4	868.5
7.5°	803.4	819.4	830.8	846.8	859.4
10°	763.4	782.8	798.8	827.4	844.5
12.5°	720.0	744.0	764.5	802.3	826.3
15°	672.0	699.4	724.5	772.5	803.4
17.5°	620.6	648.0	681.1	737.1	774.8
20°	570.3	597.7	635.4	698.3	744.0
22.5°	517.7	546.3	586.3	656.0	709.7
25°	464.0	492.6	537.1	613.7	673.1
27.5°	410.3	438.8	489.1	572.6	637.7
30°	356.6	385.1	438.8	528.0	601.1
32.5°	302.8	333.7	389.7	486.8	564.6
35°	246.8	280.0	341.7	444.6	531.4
37.5°	195.4	226.3	296.0	408.0	498.3
40°	144.0	177.1	249.1	372.6	462.8
42.5°	93.7	129.1	206.9	333.7	422.8
45°	50.3	81.1	171.4	293.7	380.6
47.5°	27.4	44.6	138.3	251.4	337.1
50°	21.7	25.1	107.4	214.9	294.8
52.5°	18.3	20.6	76.6	180.6	248.0
55°	14.9	18.3	52.6	144.0	203.4
57.5°	12.6	16.0	41.1	112.0	158.9
60°	9.1	13.7	38.9	82.3	116.6
62.5°	6.9	14.9	34.3	57.1	76.6
65°	5.7	17.1	28.6	37.7	41.1
67.5°	4.6	18.3	25.1	24.0	24.0
70°	4.6	17.1	21.7	20.6	21.7
72.5°	4.6	18.3	19.4	18.3	19.4
75°	4.6	17.1	17.1	17.1	17.1
77.5°	4.6	16.0	16.0	14.9	14.9
80°	4.6	13.7	13.7	13.7	12.6
82.5°	4.6	12.6	12.6	12.6	10.3
85°	4.6	11.4	11.4	11.4	9.1
87.5°	3.4	10.3	11.4	10.3	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)