

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059041

Luminaire Tested: S123RDRP-S1000D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059041  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S1000D927-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

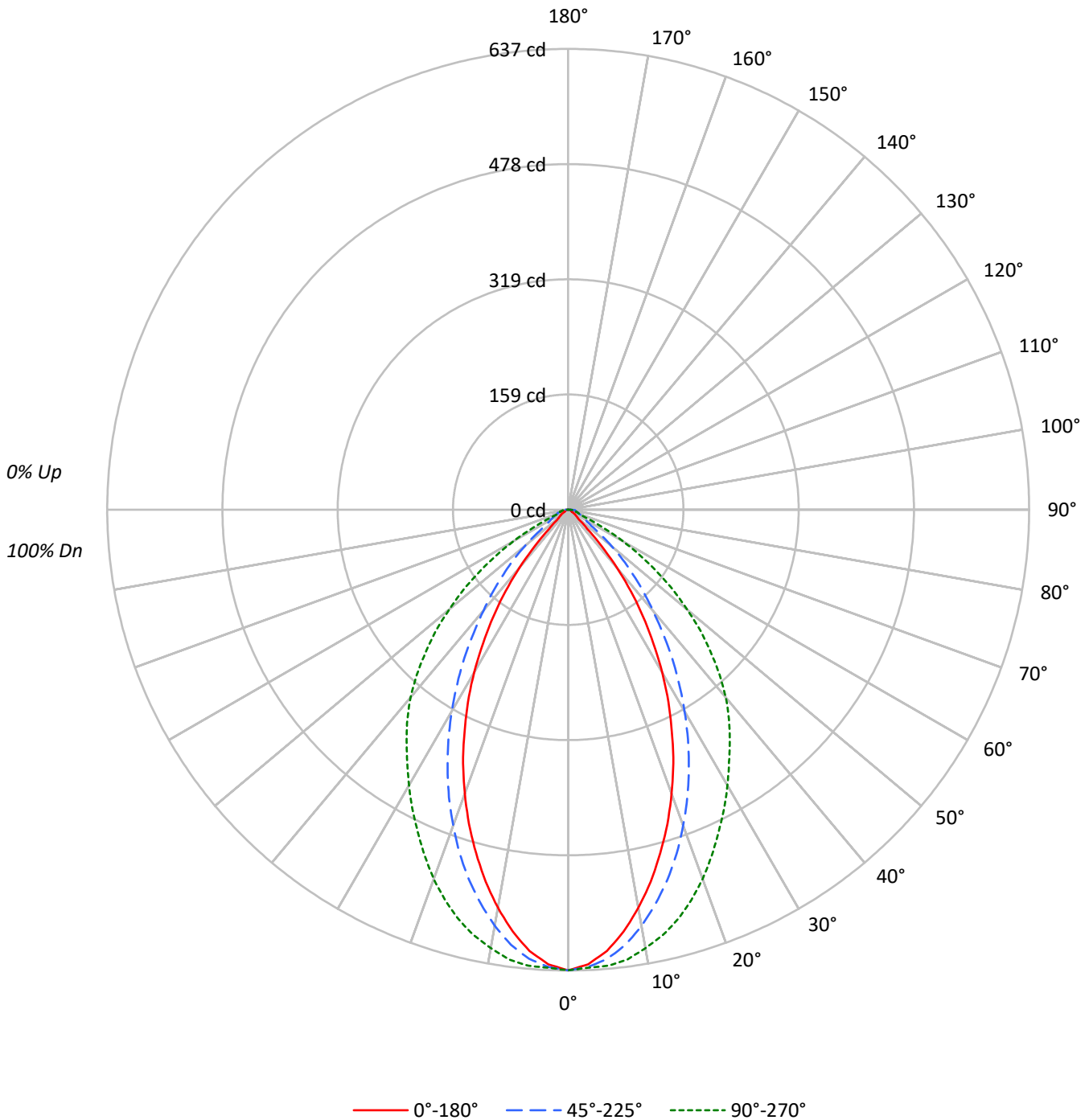
Lumens per Lamp: N/A  
Luminaire Lumens: 764.8 lumens  
Efficiency: N/A  
Efficacy: 21.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

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

	0°	45°	90°
0°	7476	7476	7476
5°	7217	7343	7459
10°	6663	6965	7337
15°	5976	6438	7124
20°	5218	5803	6788
25°	4390	5109	6369
30°	3524	4357	5966
35°	2582	3587	5582
40°	1597	2790	5193
45°	614	2102	4623
50°	301	1441	3913
55°	240	796	3069
60°	160	662	2057
65°	136	595	920
70°	134	536	536
75°	177	576	531
80°	264	724	595
85°	391	1186	781

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4623 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.4	7.6
10°-20°	149.5	19.5
20°-30°	185.5	24.3
30°-40°	166.2	21.7
40°-50°	109.2	14.3
50°-60°	54.7	7.2
60°-70°	21.6	2.8
70°-80°	12.1	1.6
80°-90°	7.6	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°	393.3	51.4
0°-40°	559.5	73.2
0°-60°	723.4	94.6
0°-90°	764.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	764.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	612	622	623	627	633	57
15°	492	507	530	566	586	137
25°	339	360	394	450	492	155
35°	180	204	250	327	389	112
45°	37	61	127	213	278	35
55°	12	14	39	105	150	10
65°	5	14	21	27	33	5
75°	4	13	13	12	12	4
85°	3	9	9	9	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	636.7	636.7	636.7	636.7	636.7
2.5°	628.9	637.6	632.8	632.8	633.7
5°	612.3	622.1	623.0	626.9	632.8
7.5°	588.0	600.6	606.5	618.2	626.9
10°	558.8	572.4	584.1	604.5	615.3
12.5°	526.7	540.3	557.8	586.0	602.6
15°	491.6	507.2	529.6	565.6	586.0
17.5°	455.6	471.2	498.4	539.3	565.6
20°	417.6	435.2	464.4	511.1	543.2
22.5°	379.7	399.1	430.3	480.9	517.9
25°	338.8	360.2	394.3	449.8	491.6
27.5°	299.8	322.2	358.2	418.6	466.3
30°	259.9	282.3	321.3	386.5	440.0
32.5°	219.0	244.3	285.2	356.3	413.7
35°	180.1	204.4	250.2	327.1	389.4
37.5°	142.1	166.5	214.2	298.9	365.1
40°	104.2	129.5	182.0	271.6	338.8
42.5°	68.1	94.4	153.8	244.3	309.6
45°	37.0	61.3	126.6	213.2	278.4
47.5°	20.4	33.1	102.2	184.0	248.2
50°	16.5	18.5	78.9	156.7	214.2
52.5°	13.6	15.6	56.5	130.4	183.0
55°	11.7	13.6	38.9	105.1	149.9
57.5°	9.7	11.7	31.2	80.8	117.8
60°	6.8	11.7	28.2	59.4	87.6
62.5°	5.8	11.7	24.3	40.9	58.4
65°	4.9	13.6	21.4	27.3	33.1
67.5°	3.9	13.6	18.5	17.5	17.5
70°	3.9	13.6	15.6	14.6	15.6
72.5°	3.9	14.6	14.6	13.6	13.6
75°	3.9	12.7	12.7	11.7	11.7
77.5°	3.9	11.7	11.7	10.7	10.7
80°	3.9	10.7	10.7	9.7	8.8
82.5°	3.9	9.7	9.7	8.8	7.8
85°	2.9	8.8	8.8	8.8	5.8
87.5°	2.9	7.8	8.8	7.8	4.9
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.71	0.00	1.02	1.34	13.54	14.79	13.90	15.11	15.42
	3H	1.97	3.08	2.35	3.41	3.78	13.61	14.73	13.99	15.06	15.42
	4H	3.14	4.18	3.54	4.53	4.91	13.68	14.71	14.08	15.06	15.45
	6H	4.19	5.14	4.61	5.51	5.91	13.78	14.73	14.19	15.10	15.49
	8H	4.73	5.63	5.16	6.02	6.43	13.84	14.74	14.27	15.13	15.53
	12H	5.21	6.07	5.64	6.45	6.88	13.91	14.77	14.34	15.15	15.58
4H	2H	2.71	3.74	3.11	4.09	4.48	13.40	14.43	13.80	14.78	15.17
	3H	5.17	6.01	5.58	6.42	6.82	13.57	14.42	13.98	14.82	15.22
	4H	6.52	7.28	6.96	7.70	8.14	13.70	14.45	14.13	14.87	15.32
	6H	7.65	8.31	8.12	8.75	9.22	13.91	14.57	14.38	15.01	15.48
	8H	8.16	8.77	8.63	9.22	9.69	14.04	14.65	14.51	15.10	15.57
	12H	8.62	9.15	9.10	9.64	10.11	14.20	14.74	14.69	15.22	15.70
8H	4H	7.44	8.05	7.91	8.50	8.97	13.70	14.31	14.17	14.76	15.23
	6H	9.04	9.54	9.54	10.03	10.52	14.03	14.53	14.53	15.03	15.51
	8H	9.86	10.31	10.38	10.83	11.32	14.26	14.71	14.78	15.23	15.72
	12H	10.64	11.04	11.15	11.53	12.11	14.59	14.99	15.10	15.48	16.05
12H	4H	7.61	8.14	8.09	8.63	9.10	13.69	14.23	14.18	14.71	15.19
	6H	9.35	9.80	9.87	10.32	10.81	14.06	14.51	14.58	15.03	15.52
	8H	10.35	10.75	10.87	11.25	11.82	14.37	14.77	14.89	15.27	15.84