

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: P1059209

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059209  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

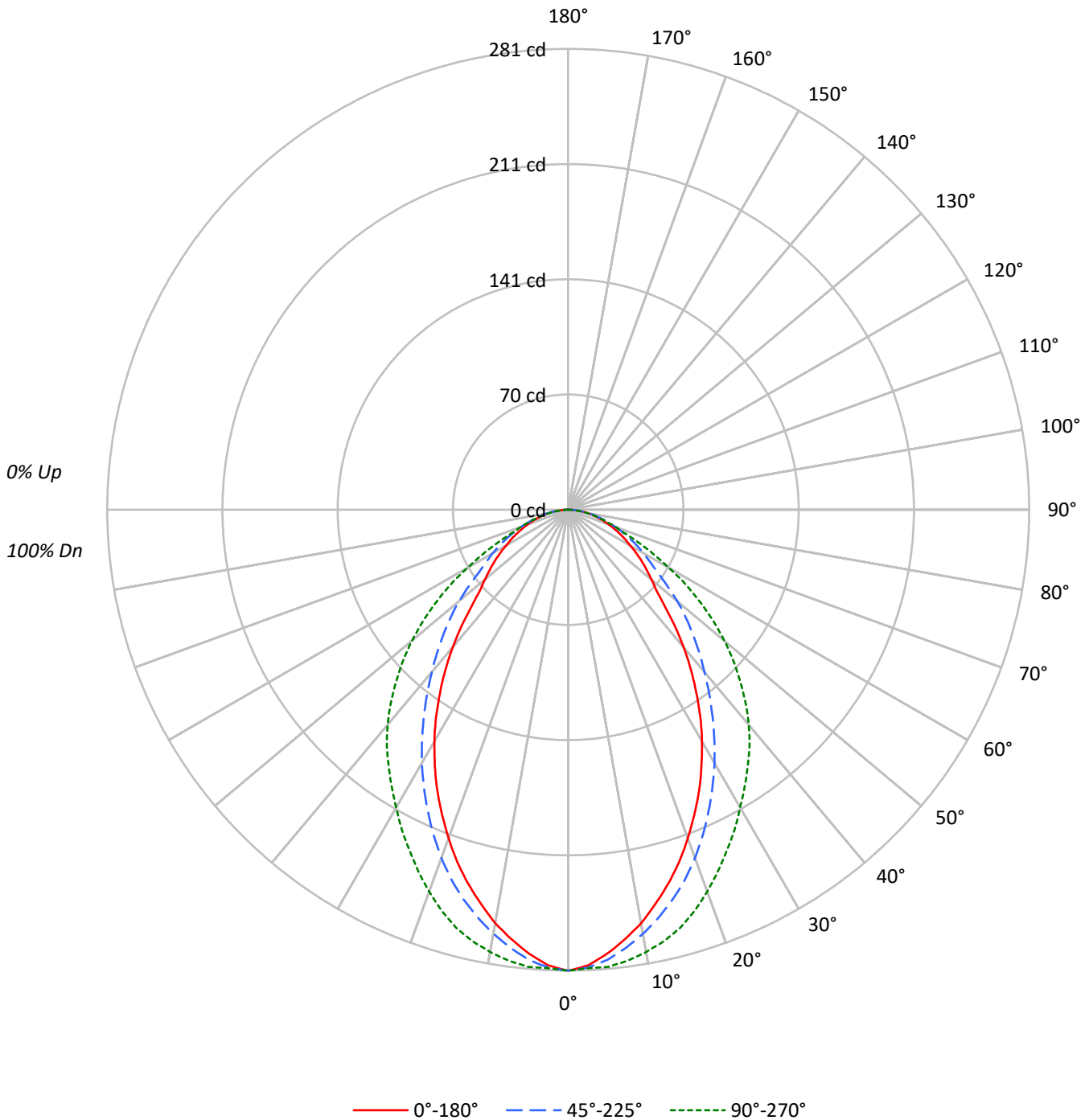
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 507.7 lumens  
Efficiency: N/A  
Efficacy: 40.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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	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	108	104	100	97	100	97	94	96	93	91	92	90	89	87												87																
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75												75																
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65												65																
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57												57																
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	53	51												51																
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45												45																
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41												41																
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37												37																
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	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°	3301	3301	3301
5°	3204	3247	3298
10°	3052	3131	3265
15°	2868	2992	3208
20°	2664	2824	3097
25°	2446	2625	2967
30°	2211	2418	2842
35°	1951	2196	2735
40°	1677	1980	2626
45°	1378	1784	2463
50°	1209	1589	2269
55°	1120	1355	2010
60°	1029	1247	1663
65°	961	1145	1309
70°	906	1040	1040
75°	853	957	898
80°	805	872	757
85°	754	849	579

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2463 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.0	5.1
10°-20°	69.7	13.7
20°-30°	94.5	18.6
30°-40°	98.8	19.5
40°-50°	85.7	16.9
50°-60°	63.7	12.5
60°-70°	40.9	8.1
70°-80°	21.9	4.3
80°-90°	6.6	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°	190.1	37.4
0°-40°	288.9	56.9
0°-60°	438.3	86.3
0°-90°	507.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	507.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	281	281	281	281	281	
5°	272	276	276	277	280	25
15°	236	242	246	256	264	66
25°	189	195	203	216	229	87
35°	136	143	153	173	191	85
45°	83	89	107	130	148	65
55°	55	56	66	85	98	49
65°	35	38	41	44	47	34
75°	19	22	21	20	20	20
85°	6	7	6	5	4	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	281.1	281.1	281.1	281.1	281.1
2.5°	278.1	282.1	279.4	279.4	279.8
5°	271.8	276.5	275.5	277.4	279.8
7.5°	264.3	269.2	269.5	274.2	277.4
10°	256.0	261.0	262.6	269.2	273.8
12.5°	246.1	251.7	254.7	262.9	269.5
15°	235.9	241.5	246.1	256.0	263.9
17.5°	225.1	230.7	236.6	247.8	256.4
20°	213.2	219.1	226.0	237.2	247.8
22.5°	201.0	207.3	214.5	226.7	238.6
25°	188.8	194.7	202.6	216.2	229.0
27.5°	176.0	182.2	190.5	205.3	219.8
30°	163.1	169.4	178.3	194.1	209.6
32.5°	149.9	156.2	165.7	183.5	200.3
35°	136.1	142.7	153.2	172.7	190.8
37.5°	122.9	129.2	141.0	162.4	181.6
40°	109.4	116.0	129.2	152.2	171.3
42.5°	96.2	102.8	118.3	141.4	160.1
45°	83.0	89.3	107.4	130.5	148.3
47.5°	72.8	77.4	97.2	119.0	136.7
50°	66.2	67.9	87.0	107.7	124.2
52.5°	60.3	61.6	75.8	96.5	111.4
55°	54.7	56.0	66.2	85.0	98.2
57.5°	49.1	50.7	59.0	73.2	85.0
60°	43.8	45.8	53.1	62.6	70.8
62.5°	39.2	41.5	47.1	53.1	58.7
65°	34.6	37.6	41.2	43.8	47.1
67.5°	30.3	33.6	35.6	36.2	36.6
70°	26.4	29.7	30.3	30.3	30.3
72.5°	22.4	26.0	25.4	25.0	24.7
75°	18.8	21.7	21.1	20.1	19.8
77.5°	15.2	17.8	16.8	16.1	15.2
80°	11.9	13.8	12.9	12.2	11.2
82.5°	8.9	10.2	9.2	8.6	7.6
85°	5.6	6.9	6.3	5.3	4.3
87.5°	3.0	4.0	3.3	3.0	1.6
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	10.93	12.41	11.29	12.73	13.04	13.69	15.18	14.06	15.49	15.80
	3H	12.64	13.97	13.02	14.30	14.66	14.71	16.04	15.09	16.37	16.73
	4H	13.30	14.55	13.70	14.90	15.28	15.08	16.32	15.48	16.67	17.05
	6H	13.81	14.96	14.22	15.32	15.72	15.33	16.48	15.75	16.85	17.24
	8H	13.99	15.08	14.41	15.47	15.87	15.40	16.50	15.83	16.89	17.29
	12H	14.11	15.16	14.54	15.54	15.97	15.44	16.49	15.87	16.87	17.30
4H	2H	11.71	12.95	12.11	13.30	13.68	13.96	15.21	14.37	15.56	15.94
	3H	13.64	14.67	14.05	15.07	15.47	15.22	16.25	15.63	16.65	17.05
	4H	14.44	15.37	14.88	15.79	16.23	15.70	16.63	16.14	17.05	17.49
	6H	15.09	15.89	15.54	16.34	16.80	16.08	16.89	16.54	17.34	17.80
	8H	15.31	16.07	15.78	16.51	16.98	16.20	16.95	16.66	17.40	17.86
	12H	15.49	16.16	15.97	16.64	17.11	16.27	16.94	16.75	17.42	17.89
8H	4H	14.76	15.52	15.23	15.96	16.43	15.89	16.65	16.36	17.09	17.56
	6H	15.56	16.18	16.06	16.67	17.15	16.38	17.01	16.88	17.50	17.98
	8H	15.88	16.44	16.40	16.96	17.44	16.56	17.12	17.08	17.63	18.12
	12H	16.16	16.66	16.67	17.15	17.72	16.69	17.19	17.20	17.68	18.25
12H	4H	14.79	15.46	15.27	15.94	16.41	15.91	16.58	16.39	17.06	17.53
	6H	15.61	16.17	16.13	16.68	17.17	16.42	16.98	16.93	17.49	17.98
	8H	16.00	16.50	16.52	16.99	17.56	16.65	17.15	17.16	17.64	18.20