

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: P1059245

Luminaire Tested: S123RDRP-S340D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059245  
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-S340D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

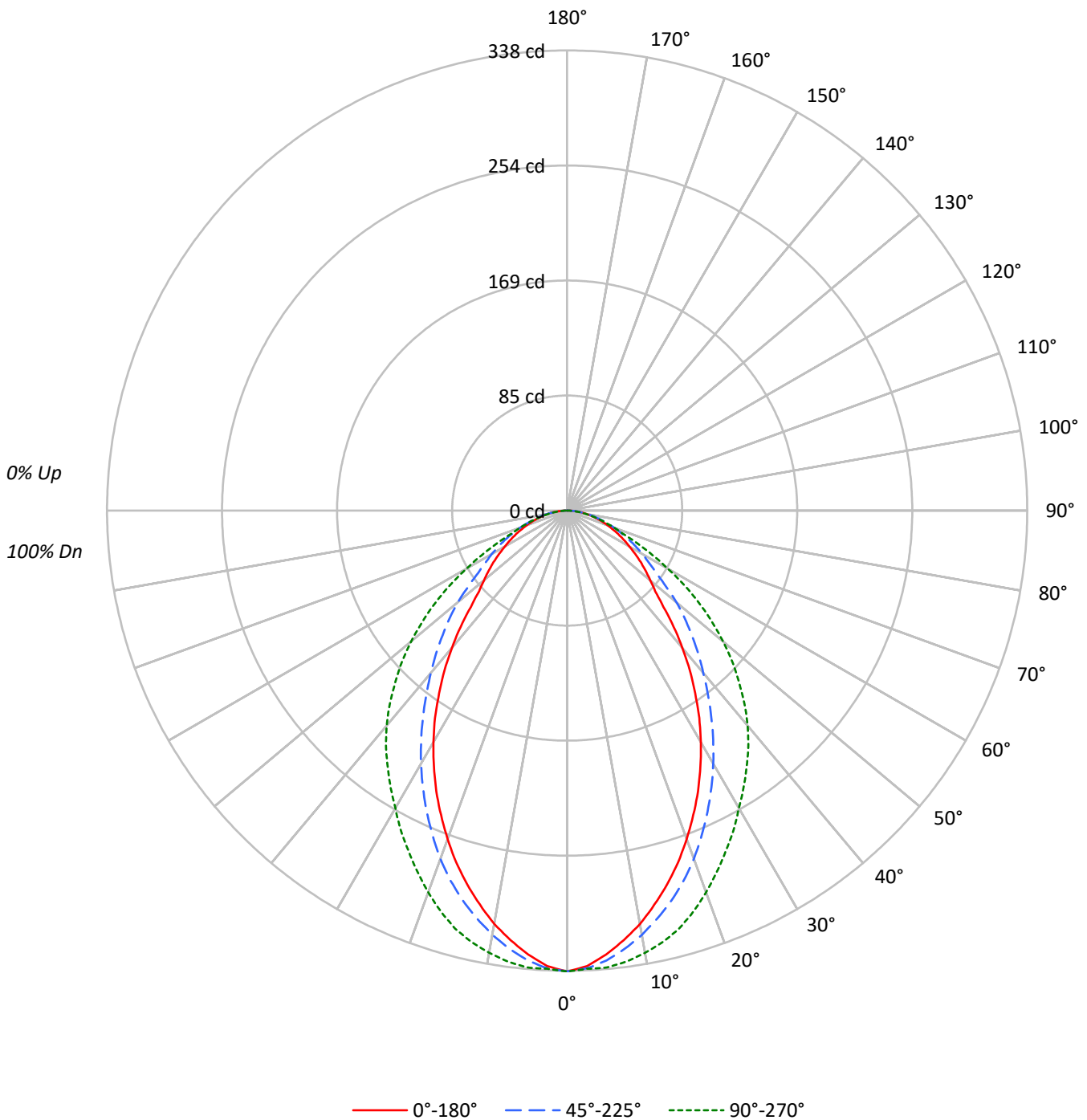
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 611.4 lumens  
Efficiency: N/A  
Efficacy: 48.9 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 (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	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	66	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°	3975	3975	3975
5°	3859	3910	3971
10°	3676	3771	3932
15°	3454	3603	3865
20°	3208	3401	3729
25°	2946	3161	3573
30°	2663	2911	3422
35°	2349	2645	3294
40°	2019	2385	3162
45°	1661	2149	2966
50°	1458	1914	2733
55°	1349	1634	2422
60°	1240	1501	2003
65°	1159	1378	1575
70°	1088	1253	1253
75°	1025	1152	1080
80°	967	1048	913
85°	903	1010	701

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2966 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.3	5.1
10°-20°	83.9	13.7
20°-30°	113.8	18.6
30°-40°	118.9	19.5
40°-50°	103.2	16.9
50°-60°	76.7	12.6
60°-70°	49.2	8.1
70°-80°	26.4	4.3
80°-90°	8.0	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°	229.0	37.4
0°-40°	347.9	56.9
0°-60°	527.8	86.3
0°-90°	611.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	611.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	338	338	338	338	338	
5°	327	333	332	334	337	31
15°	284	291	296	308	318	80
25°	227	234	244	260	276	104
35°	164	172	184	208	230	102
45°	100	108	129	157	179	79
55°	66	68	80	102	118	59
65°	42	45	50	53	57	41
75°	23	26	25	24	24	24
85°	7	8	8	6	5	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	338.5	338.5	338.5	338.5	338.5
2.5°	334.9	339.7	336.5	336.5	336.9
5°	327.4	332.9	331.7	334.1	336.9
7.5°	318.2	324.2	324.6	330.2	334.1
10°	308.3	314.3	316.3	324.2	329.8
12.5°	296.4	303.2	306.7	316.7	324.6
15°	284.1	290.9	296.4	308.3	317.9
17.5°	271.0	277.8	284.9	298.4	308.7
20°	256.7	263.9	272.2	285.7	298.4
22.5°	242.1	249.6	258.3	273.0	287.3
25°	227.4	234.5	244.0	260.3	275.8
27.5°	211.9	219.4	229.4	247.2	264.7
30°	196.4	204.0	214.7	233.7	252.4
32.5°	180.6	188.1	199.6	221.0	241.3
35°	163.9	171.8	184.5	207.9	229.8
37.5°	148.0	155.6	169.8	195.6	218.6
40°	131.7	139.7	155.6	183.3	206.3
42.5°	115.9	123.8	142.5	170.2	192.9
45°	100.0	107.5	129.4	157.1	178.6
47.5°	87.7	93.3	117.1	143.3	164.7
50°	79.8	81.7	104.8	129.8	149.6
52.5°	72.6	74.2	91.3	116.3	134.1
55°	65.9	67.5	79.8	102.4	118.3
57.5°	59.1	61.1	71.0	88.1	102.4
60°	52.8	55.2	63.9	75.4	85.3
62.5°	47.2	50.0	56.7	63.9	70.6
65°	41.7	45.2	49.6	52.8	56.7
67.5°	36.5	40.5	42.9	43.6	44.0
70°	31.7	35.7	36.5	36.5	36.5
72.5°	27.0	31.3	30.6	30.2	29.8
75°	22.6	26.2	25.4	24.2	23.8
77.5°	18.3	21.4	20.2	19.4	18.3
80°	14.3	16.7	15.5	14.7	13.5
82.5°	10.7	12.3	11.1	10.3	9.1
85°	6.7	8.3	7.5	6.3	5.2
87.5°	3.6	4.8	4.0	3.6	2.0
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	11.58	13.06	11.94	13.38	13.69	14.34	15.82	14.70	16.13	16.45
	3H	13.29	14.62	13.67	14.95	15.31	15.36	16.68	15.73	17.01	17.38
	4H	13.95	15.19	14.35	15.54	15.92	15.72	16.97	16.12	17.32	17.70
	6H	14.45	15.60	14.86	15.97	16.36	15.98	17.13	16.39	17.49	17.89
	8H	14.63	15.72	15.06	16.11	16.52	16.05	17.14	16.47	17.53	17.93
	12H	14.76	15.80	15.19	16.19	16.61	16.08	17.13	16.51	17.51	17.94
4H	2H	12.35	13.60	12.76	13.95	14.33	14.61	15.85	15.01	16.20	16.58
	3H	14.28	15.31	14.69	15.71	16.12	15.86	16.89	16.27	17.29	17.70
	4H	15.09	16.02	15.52	16.44	16.88	16.35	17.28	16.78	17.69	18.13
	6H	15.73	16.54	16.19	16.98	17.44	16.73	17.54	17.19	17.98	18.44
	8H	15.96	16.72	16.42	17.16	17.63	16.84	17.60	17.30	18.04	18.51
	12H	16.13	16.81	16.62	17.29	17.76	16.91	17.59	17.39	18.06	18.54
8H	4H	15.41	16.16	15.87	16.61	17.08	16.54	17.29	17.00	17.74	18.21
	6H	16.20	16.83	16.70	17.32	17.80	17.03	17.65	17.53	18.14	18.62
	8H	16.53	17.09	17.05	17.60	18.09	17.20	17.76	17.72	18.27	18.76
	12H	16.81	17.30	17.32	17.80	18.36	17.34	17.83	17.85	18.32	18.89
12H	4H	15.43	16.11	15.92	16.59	17.06	16.55	17.23	17.04	17.71	18.18
	6H	16.26	16.82	16.77	17.33	17.82	17.06	17.63	17.58	18.14	18.62
	8H	16.65	17.15	17.16	17.64	18.21	17.29	17.79	17.80	18.28	18.85