

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: P1060262

Luminaire Tested: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060262  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 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**

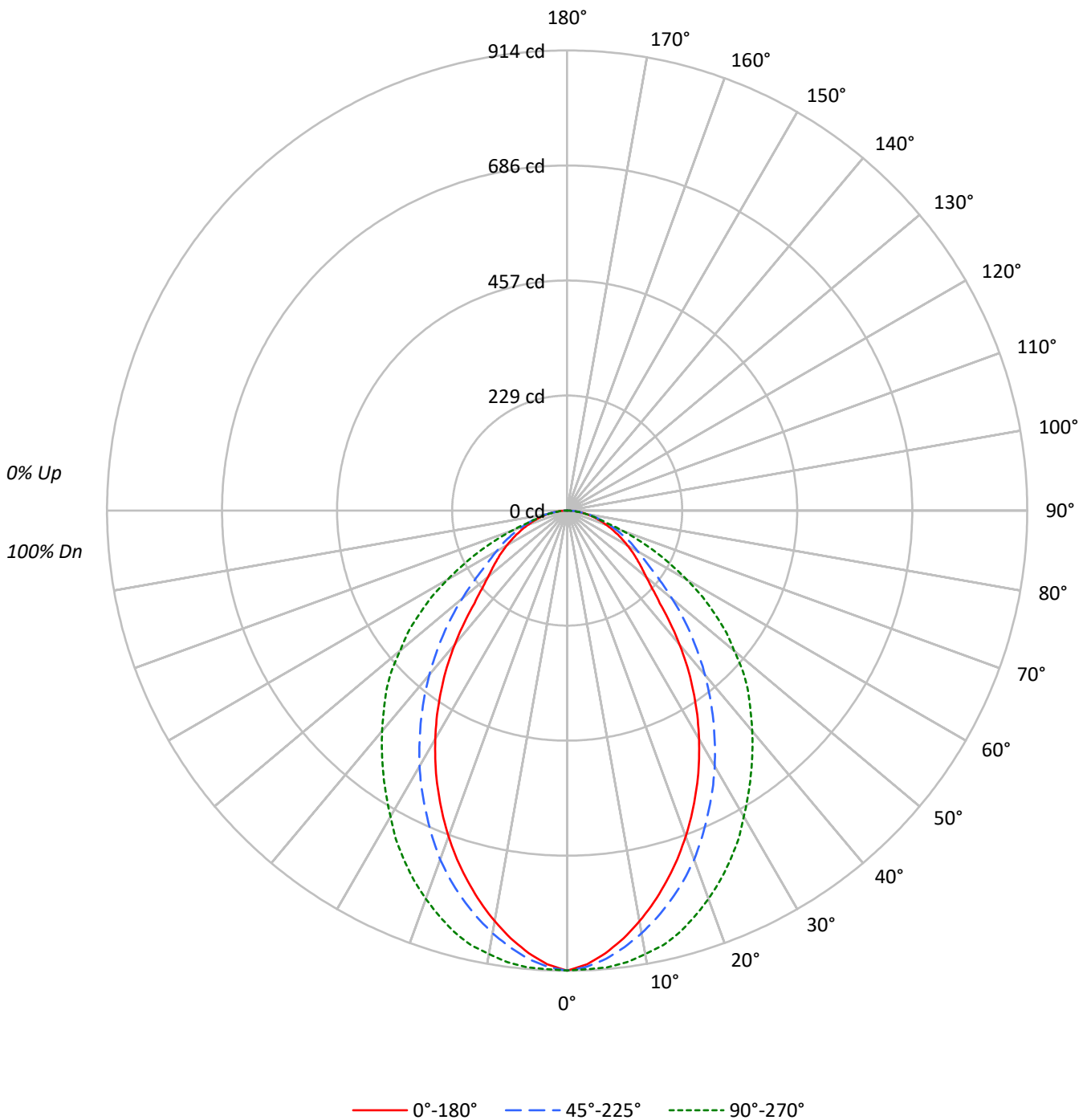
Lumens per Lamp: N/A  
Luminaire Lumens: 1663.2 lumens  
Efficiency: N/A  
Efficacy: 47.5 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P1060262

CATALOG NUMBER: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1060262

CATALOG NUMBER: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S

**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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

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

	0°	45°	90°
0°	7867	7867	7867
5°	7624	7723	7872
10°	7243	7452	7821
15°	6796	7128	7726
20°	6309	6757	7521
25°	5778	6297	7279
30°	5208	5828	6979
35°	4591	5315	6694
40°	3907	4790	6426
45°	3172	4233	6193
50°	2745	3644	5798
55°	2545	3091	5376
60°	2375	2787	4717
65°	2225	2614	3922
70°	2075	2412	2966
75°	1976	2229	2136
80°	1850	2043	1805
85°	1699	1897	1423

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6193 cd/sqm



TEST NUMBER: P1060262

CATALOG NUMBER: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.4	5.1
10°-20°	226.7	13.6
20°-30°	309.6	18.6
30°-40°	324.3	19.5
40°-50°	280.7	16.9
50°-60°	210.9	12.7
60°-70°	136.0	8.2
70°-80°	69.8	4.2
80°-90°	20.8	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°	620.6	37.3
0°-40°	945.0	56.8
0°-60°	1436.6	86.4
0°-90°	1663.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1663.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	882	895	894	900	911	83
15°	762	781	800	836	867	214
25°	608	631	663	714	766	279
35°	437	462	506	573	637	272
45°	260	287	348	433	508	205
55°	170	175	206	294	358	152
65°	109	111	128	155	192	109
75°	59	66	67	66	64	63
85°	17	20	19	18	14	20
90°	0	0	0	0	0	



TEST NUMBER: P1060262

CATALOG NUMBER: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	913.6	913.6	913.6	913.6	913.6
2.5°	902.1	913.6	906.9	908.8	911.7
5°	882.0	895.4	893.5	900.2	910.7
7.5°	857.1	871.4	874.3	889.6	904.9
10°	828.3	844.6	852.3	875.3	894.4
12.5°	796.7	814.0	827.4	856.1	883.9
15°	762.3	781.4	799.6	836.0	866.6
17.5°	726.8	746.0	769.9	810.1	844.6
20°	688.5	709.6	737.4	779.5	820.7
22.5°	649.3	671.3	701.0	746.9	794.8
25°	608.1	631.1	662.7	714.4	766.1
27.5°	566.9	589.9	625.3	679.9	736.4
30°	523.8	547.8	586.1	645.4	701.9
32.5°	480.7	506.6	545.8	609.0	669.4
35°	436.7	461.6	505.6	572.7	636.8
37.5°	392.6	418.5	465.4	537.2	604.3
40°	347.6	374.4	426.1	501.8	571.7
42.5°	302.6	331.3	385.9	465.4	539.1
45°	260.5	287.3	347.6	432.8	508.5
47.5°	228.9	247.1	309.3	401.2	474.0
50°	204.9	214.5	272.0	366.8	432.8
52.5°	186.7	193.4	237.5	329.4	399.3
55°	169.5	175.2	205.9	294.0	358.1
57.5°	154.2	157.0	181.9	259.5	318.9
60°	137.9	140.8	161.8	222.2	273.9
62.5°	123.5	125.4	145.6	186.7	232.7
65°	109.2	111.1	128.3	155.1	192.5
67.5°	95.8	98.6	112.0	126.4	153.2
70°	82.4	88.1	95.8	102.5	117.8
72.5°	70.9	76.6	80.4	82.4	83.3
75°	59.4	66.1	67.0	66.1	64.2
77.5°	47.9	53.6	53.6	51.7	49.8
80°	37.3	42.1	41.2	39.3	36.4
82.5°	27.8	30.6	29.7	27.8	24.9
85°	17.2	20.1	19.2	18.2	14.4
87.5°	8.6	11.5	10.5	9.6	5.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060262  
 CATALOG NUMBER: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-S

**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	13.60	15.08	13.96	15.39	15.71	17.37	18.86	17.74	19.17	19.48
	3H	15.25	16.58	15.63	16.91	17.27	18.49	19.82	18.86	20.14	20.51
	4H	15.92	17.17	16.32	17.52	17.90	18.78	20.02	19.18	20.37	20.75
	6H	16.44	17.59	16.85	17.95	18.35	18.97	20.12	19.39	20.49	20.88
	8H	16.62	17.71	17.05	18.10	18.50	19.03	20.12	19.45	20.51	20.91
	12H	16.74	17.79	17.17	18.17	18.60	19.05	20.10	19.48	20.48	20.91
4H	2H	14.38	15.63	14.78	15.97	16.35	17.53	18.78	17.93	19.13	19.50
	3H	16.24	17.28	16.65	17.68	18.08	18.84	19.88	19.25	20.28	20.68
	4H	17.05	17.98	17.49	18.40	18.84	19.25	20.18	19.68	20.60	21.04
	6H	17.70	18.51	18.16	18.95	19.41	19.57	20.37	20.03	20.82	21.28
	8H	17.93	18.68	18.39	19.13	19.59	19.66	20.41	20.12	20.86	21.33
	12H	18.10	18.77	18.58	19.25	19.72	19.72	20.39	20.20	20.87	21.35
8H	4H	17.40	18.16	17.87	18.60	19.07	19.38	20.14	19.85	20.58	21.05
	6H	18.19	18.82	18.69	19.31	19.79	19.80	20.42	20.29	20.91	21.39
	8H	18.51	19.07	19.03	19.58	20.07	19.95	20.51	20.46	21.02	21.51
	12H	18.78	19.27	19.29	19.77	20.33	20.07	20.57	20.58	21.06	21.62
12H	4H	17.43	18.10	17.91	18.58	19.05	19.39	20.06	19.87	20.54	21.01
	6H	18.26	18.82	18.77	19.33	19.81	19.82	20.38	20.33	20.89	21.38
	8H	18.64	19.14	19.15	19.63	20.19	20.02	20.51	20.53	21.01	21.57