

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: P1060293

Luminaire Tested: S124RDRP-S1020D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060293  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1020D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

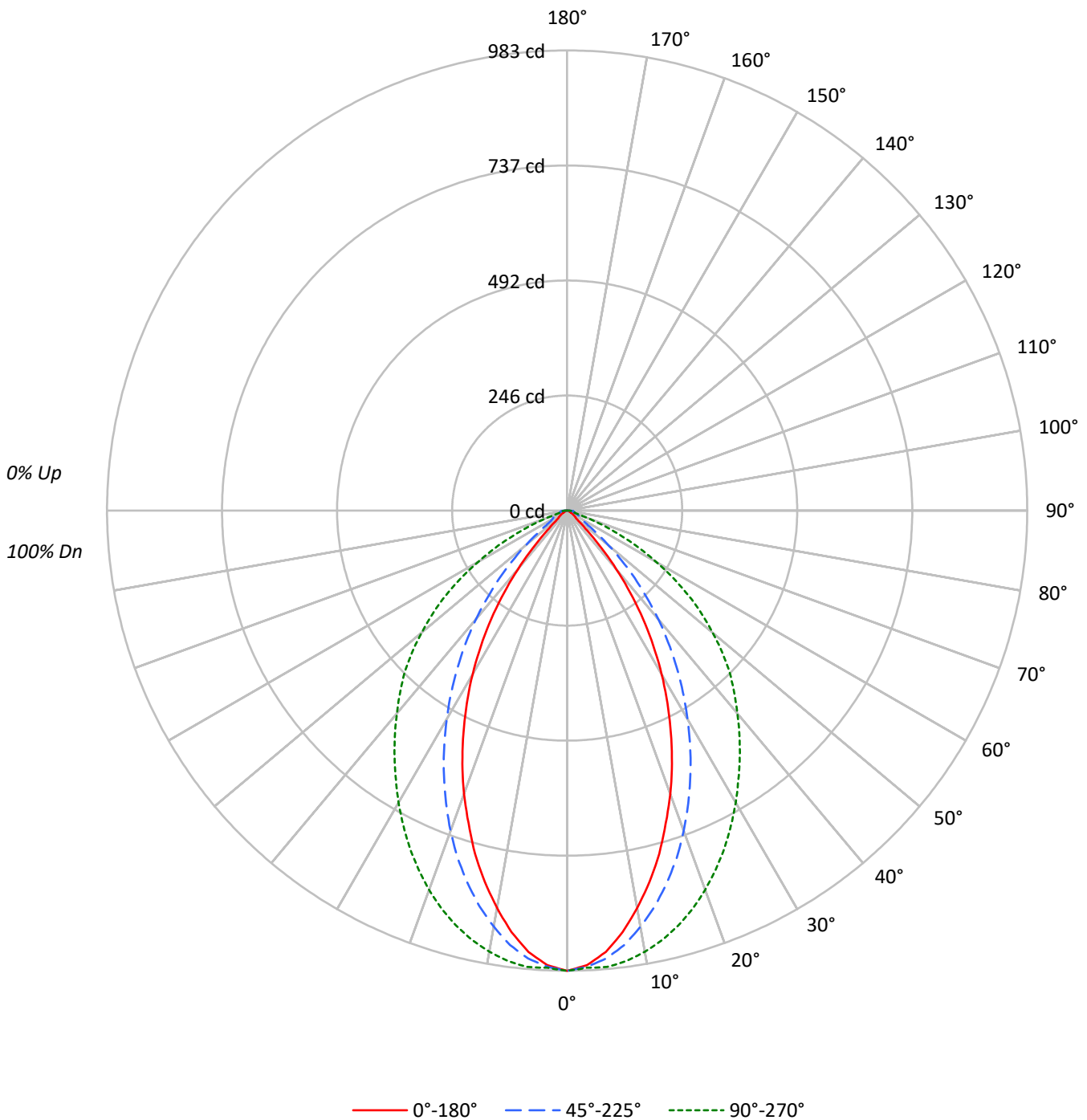
Lumens per Lamp: N/A  
Luminaire Lumens: 1239.3 lumens  
Efficiency: N/A  
Efficacy: 35.4 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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: P1060293

CATALOG NUMBER: S124RDRP-S1020D950-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1060293

CATALOG NUMBER: S124RDRP-S1020D950-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	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

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

	0°	45°	90°
0°	8467	8467	8467
5°	8181	8300	8460
10°	7538	7891	8365
15°	6770	7336	8179
20°	5901	6673	7900
25°	4979	5921	7555
30°	4016	5118	7161
35°	2973	4283	6757
40°	1842	3412	6357
45°	731	2488	5987
50°	324	1562	5442
55°	260	814	4765
60°	179	617	3796
65°	118	611	2610
70°	116	551	1221
75°	153	539	539
80°	228	630	630
85°	454	1255	909

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5987 cd/sqm



TEST NUMBER: P1060293

CATALOG NUMBER: S124RDRP-S1020D950-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.2	7.3
10°-20°	232.8	18.8
20°-30°	293.8	23.7
30°-40°	269.6	21.8
40°-50°	183.6	14.8
50°-60°	100.0	8.1
60°-70°	43.3	3.5
70°-80°	15.8	1.3
80°-90°	10.2	0.8
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°	616.8	49.8
0°-40°	886.4	71.5
0°-60°	1170.0	94.4
0°-90°	1239.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1239.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	946	959	960	971	979	88
15°	759	786	823	882	918	211
25°	524	561	623	722	795	239
35°	283	324	407	537	643	175
45°	60	100	204	362	492	56
55°	17	18	54	200	317	15
65°	6	8	30	62	128	7
75°	5	15	16	16	16	5
85°	5	10	13	13	9	4
90°	0	0	0	0	0	



TEST NUMBER: P1060293

CATALOG NUMBER: S124RDRP-S1020D950-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	983.3	983.3	983.3	983.3	983.3
2.5°	971.7	983.3	975.2	977.5	977.5
5°	946.4	959.0	960.2	970.6	978.7
7.5°	908.3	926.7	936.0	956.7	970.6
10°	862.1	884.0	902.5	938.3	956.7
12.5°	812.5	837.9	865.6	912.9	939.4
15°	759.4	785.9	822.9	881.7	917.5
17.5°	700.5	732.8	777.9	848.3	892.1
20°	644.0	676.3	728.2	807.9	862.1
22.5°	585.1	618.6	676.3	765.2	829.8
25°	524.0	560.9	623.2	722.5	795.2
27.5°	463.9	503.2	569.0	677.4	758.2
30°	403.9	443.2	514.7	631.3	720.2
32.5°	342.8	383.2	460.5	582.8	680.9
35°	282.8	324.3	407.4	536.7	642.8
37.5°	221.6	265.4	354.3	491.6	604.7
40°	163.9	207.7	303.5	446.6	565.5
42.5°	109.6	153.5	251.6	402.8	528.6
45°	60.0	100.4	204.3	362.4	491.6
47.5°	32.3	55.4	158.1	323.1	450.1
50°	24.2	30.0	116.6	281.6	406.2
52.5°	20.8	23.1	80.8	237.7	362.4
55°	17.3	18.5	54.2	199.7	317.4
57.5°	13.8	15.0	40.4	161.6	268.9
60°	10.4	12.7	35.8	124.6	220.4
62.5°	8.1	10.4	33.5	91.2	174.3
65°	5.8	8.1	30.0	62.3	128.1
67.5°	5.8	9.2	25.4	40.4	86.6
70°	4.6	12.7	21.9	26.5	48.5
72.5°	4.6	13.8	18.5	18.5	18.5
75°	4.6	15.0	16.2	16.2	16.2
77.5°	4.6	13.8	15.0	13.8	13.8
80°	4.6	12.7	12.7	12.7	12.7
82.5°	4.6	11.5	12.7	12.7	10.4
85°	4.6	10.4	12.7	12.7	9.2
87.5°	3.5	10.4	11.5	11.5	6.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060293

CATALOG NUMBER: S124RDRP-S1020D950-X4F0-XX-UDD-BVL-W

**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	0.00	0.00	0.04	0.36	15.83	17.11	16.20	17.42	17.74
	3H	0.00	1.01	0.26	1.34	1.71	16.21	17.34	16.59	17.67	18.03
	4H	1.10	2.15	1.50	2.50	2.89	16.19	17.24	16.59	17.59	17.97
	6H	2.28	3.24	2.69	3.61	4.01	16.17	17.14	16.59	17.51	17.90
	8H	2.87	3.78	3.30	4.17	4.58	16.17	17.09	16.60	17.48	17.88
	12H	3.54	4.41	3.97	4.79	5.22	16.19	17.06	16.62	17.44	17.87
4H	2H	2.07	3.13	2.48	3.48	3.86	15.64	16.69	16.05	17.05	17.43
	3H	3.66	4.52	4.07	4.92	5.32	16.06	16.92	16.47	17.33	17.73
	4H	4.95	5.72	5.38	6.14	6.58	16.06	16.83	16.50	17.25	17.69
	6H	6.07	6.74	6.54	7.18	7.65	16.10	16.76	16.56	17.21	17.68
	8H	6.58	7.20	7.05	7.65	8.12	16.13	16.75	16.60	17.19	17.66
	12H	7.13	7.68	7.62	8.16	8.64	16.19	16.74	16.68	17.22	17.70
8H	4H	6.04	6.65	6.51	7.10	7.57	15.97	16.59	16.44	17.04	17.51
	6H	7.58	8.08	8.08	8.58	9.06	16.05	16.55	16.55	17.05	17.53
	8H	8.38	8.84	8.90	9.35	9.84	16.13	16.59	16.66	17.10	17.60
	12H	9.21	9.62	9.73	10.11	10.68	16.30	16.70	16.82	17.20	17.77
12H	4H	6.23	6.77	6.71	7.25	7.73	15.93	16.48	16.42	16.96	17.44
	6H	7.93	8.39	8.46	8.90	9.40	16.02	16.48	16.55	16.99	17.49
	8H	8.94	9.34	9.46	9.84	10.41	16.16	16.56	16.67	17.06	17.63