

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



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060664

Luminaire Tested: S124RDR-H1020D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060664  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1020D927-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

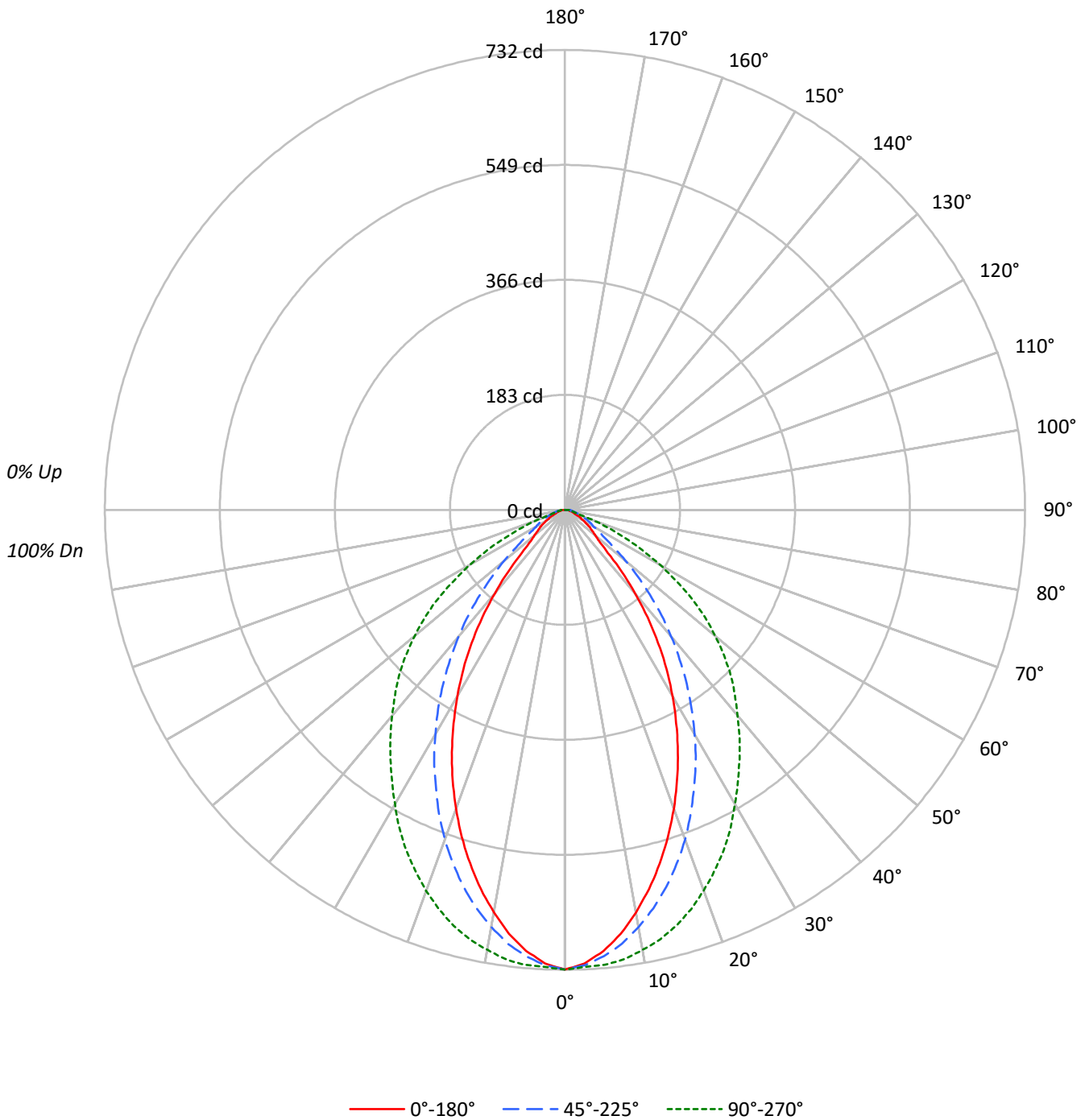
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1028.9 lumens  
Efficiency: N/A  
Efficacy: 33.0 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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

TEST NUMBER: P1060664

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-SVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1060664

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-SVL-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	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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	6301	6301	6301
5°	6091	6164	6285
10°	5690	5893	6219
15°	5196	5544	6108
20°	4641	5119	5912
25°	4042	4617	5679
30°	3407	4101	5378
35°	2721	3552	5089
40°	1957	2951	4803
45°	1179	2324	4546
50°	848	1684	4178
55°	713	1132	3704
60°	577	897	2983
65°	454	815	2144
70°	398	680	1148
75°	373	619	559
80°	367	645	506
85°	553	919	642

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4546 cd/sqm



TEST NUMBER: P1060664

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-SVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	6.5
10°-20°	176.0	17.1
20°-30°	228.4	22.2
30°-40°	219.5	21.3
40°-50°	162.9	15.8
50°-60°	99.8	9.7
60°-70°	48.5	4.7
70°-80°	18.5	1.8
80°-90°	8.3	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°	471.5	45.8
0°-40°	691.1	67.2
0°-60°	953.7	92.7
0°-90°	1028.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1028.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	705	715	713	720	727	66
15°	583	600	622	659	685	163
25°	425	447	486	548	598	194
35°	259	282	338	418	484	160
45°	97	121	191	291	373	80
55°	48	49	75	170	247	43
65°	22	24	40	63	105	23
75°	11	18	19	17	17	12
85°	6	9	9	8	6	5
90°	0	0	0	0	0	

TEST NUMBER: P1060664

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-SVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	731.7	731.7	731.7	731.7	731.7
2.5°	722.4	730.8	725.2	727.1	728.0
5°	704.7	715.0	713.1	719.6	727.1
7.5°	680.5	692.6	696.3	709.4	721.5
10°	650.7	665.6	674.0	695.4	711.2
12.5°	618.1	634.0	649.8	678.6	700.1
15°	582.8	599.5	621.9	659.1	685.2
17.5°	545.5	564.1	591.1	635.8	666.5
20°	506.4	526.0	558.6	607.9	645.1
22.5°	466.4	486.9	523.2	578.1	621.9
25°	425.4	446.8	485.9	548.3	597.7
27.5°	383.5	405.9	450.6	516.7	570.7
30°	342.6	364.0	412.4	484.1	540.9
32.5°	300.7	323.0	375.2	450.6	512.0
35°	258.8	282.1	337.9	418.0	484.1
37.5°	216.0	241.1	299.8	386.3	456.2
40°	174.1	198.3	262.5	353.8	427.3
42.5°	133.1	159.2	227.1	321.2	400.3
45°	96.8	121.0	190.8	291.4	373.3
47.5°	72.6	87.5	157.3	263.5	343.5
50°	63.3	66.1	125.7	232.7	311.9
52.5°	54.9	56.8	97.7	199.2	280.2
55°	47.5	49.3	75.4	170.4	246.7
57.5°	40.0	41.9	60.5	142.4	208.5
60°	33.5	35.4	52.1	113.6	173.2
62.5°	27.9	28.9	46.5	86.6	138.7
65°	22.3	24.2	40.0	63.3	105.2
67.5°	18.6	20.5	32.6	43.8	73.5
70°	15.8	20.5	27.0	30.7	45.6
72.5°	13.0	18.6	22.3	21.4	21.4
75°	11.2	17.7	18.6	16.8	16.8
77.5°	9.3	15.8	14.9	14.0	13.0
80°	7.4	13.0	13.0	11.2	10.2
82.5°	6.5	10.2	10.2	10.2	8.4
85°	5.6	9.3	9.3	8.4	6.5
87.5°	3.7	7.4	8.4	7.4	4.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060664  
 CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-SVL-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	6.21	7.55	6.57	7.86	8.18	15.31	16.65	15.67	16.96	17.27
	3H	7.25	8.44	7.63	8.77	9.14	15.81	17.00	16.19	17.33	17.69
	4H	7.77	8.88	8.17	9.23	9.61	15.82	16.93	16.23	17.28	17.66
	6H	8.22	9.23	8.63	9.60	10.00	15.82	16.84	16.24	17.21	17.60
	8H	8.41	9.37	8.84	9.76	10.16	15.82	16.78	16.25	17.17	17.58
	12H	8.62	9.54	9.05	9.92	10.35	15.82	16.74	16.25	17.12	17.55
4H	2H	7.30	8.41	7.70	8.76	9.14	15.20	16.30	15.60	16.65	17.04
	3H	8.57	9.48	8.99	9.88	10.28	15.77	16.68	16.19	17.08	17.49
	4H	9.28	10.09	9.71	10.51	10.95	15.82	16.63	16.26	17.05	17.49
	6H	9.91	10.61	10.37	11.05	11.52	15.87	16.57	16.34	17.02	17.49
	8H	10.15	10.80	10.62	11.25	11.72	15.89	16.54	16.36	16.99	17.46
	12H	10.43	11.00	10.91	11.49	11.96	15.92	16.50	16.41	16.98	17.46
8H	4H	9.70	10.36	10.17	10.80	11.28	15.77	16.42	16.24	16.87	17.34
	6H	10.58	11.11	11.08	11.61	12.09	15.86	16.40	16.37	16.90	17.38
	8H	10.98	11.46	11.50	11.98	12.47	15.92	16.41	16.45	16.92	17.41
	12H	11.46	11.89	11.97	12.38	12.95	16.02	16.45	16.54	16.94	17.51
12H	4H	9.75	10.33	10.23	10.81	11.28	15.74	16.32	16.23	16.80	17.28
	6H	10.69	11.17	11.21	11.69	12.18	15.84	16.32	16.36	16.84	17.33
	8H	11.20	11.63	11.72	12.12	12.69	15.95	16.37	16.46	16.87	17.44