

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: P1060268

Luminaire Tested: S124RDRP-S1020D930-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060268  
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: S124RDRP-S1020D930-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

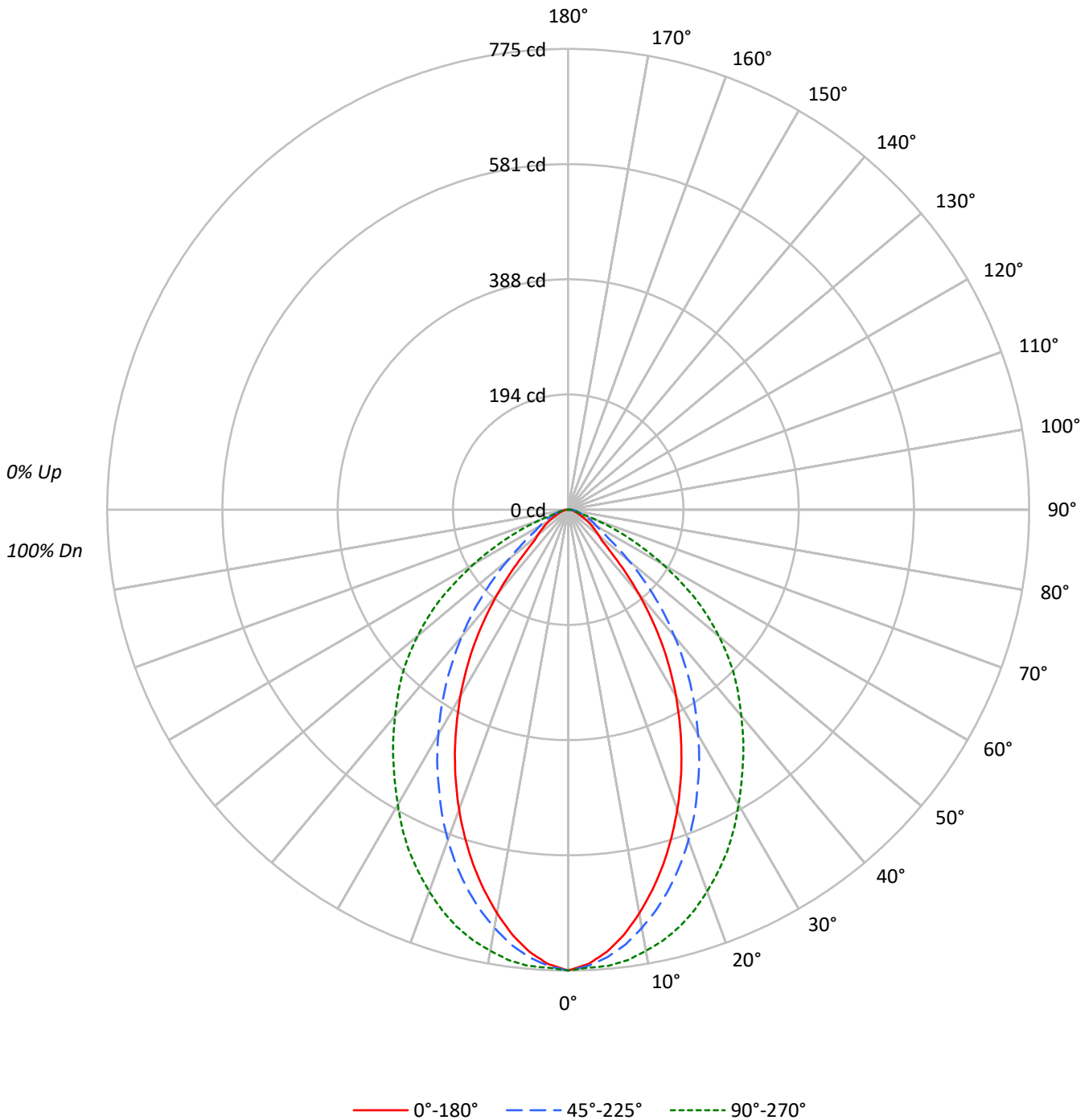
Lumens per Lamp: N/A  
Luminaire Lumens: 1089.6 lumens  
Efficiency: N/A  
Efficacy: 31.1 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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

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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	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	72	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	49	45	55	49	45	54	48	45	43				43
9	65	54	46	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°	6673	6673	6673
5°	6451	6528	6656
10°	6025	6241	6586
15°	5502	5871	6469
20°	4915	5420	6261
25°	4280	4889	6013
30°	3607	4342	5696
35°	2881	3762	5390
40°	2073	3125	5087
45°	1248	2461	4814
50°	898	1783	4425
55°	755	1200	3923
60°	611	951	3159
65°	483	864	2270
70°	423	720	1216
75°	393	655	589
80°	392	684	536
85°	583	978	682

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4814 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.1	6.5
10°-20°	186.4	17.1
20°-30°	241.9	22.2
30°-40°	232.5	21.3
40°-50°	172.5	15.8
50°-60°	105.7	9.7
60°-70°	51.3	4.7
70°-80°	19.5	1.8
80°-90°	8.8	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°	499.4	45.8
0°-40°	731.8	67.2
0°-60°	1010.0	92.7
0°-90°	1089.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1089.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	746	757	755	762	770	69
15°	617	635	659	698	726	172
25°	450	473	515	581	633	206
35°	274	299	358	443	513	170
45°	102	128	202	309	395	85
55°	50	52	80	180	261	45
65°	24	26	42	67	111	24
75°	12	19	20	18	18	13
85°	6	10	10	9	7	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	774.9	774.9	774.9	774.9	774.9
2.5°	765.0	773.9	768.0	770.0	771.0
5°	746.3	757.2	755.2	762.1	770.0
7.5°	720.7	733.5	737.4	751.2	764.1
10°	689.1	704.9	713.8	736.5	753.2
12.5°	654.6	671.4	688.1	718.7	741.4
15°	617.2	634.9	658.6	698.0	725.6
17.5°	577.7	597.4	626.0	673.4	705.9
20°	536.3	557.0	591.5	643.8	683.2
22.5°	493.9	515.6	554.1	612.2	658.6
25°	450.5	473.2	514.6	580.7	632.9
27.5°	406.2	429.8	477.2	547.2	604.3
30°	362.8	385.5	436.7	512.7	572.8
32.5°	318.4	342.1	397.3	477.2	542.2
35°	274.1	298.7	357.9	442.7	512.7
37.5°	228.7	255.3	317.5	409.1	483.1
40°	184.4	210.0	278.0	374.6	452.5
42.5°	141.0	168.6	240.6	340.1	423.9
45°	102.5	128.2	202.1	308.6	395.3
47.5°	76.9	92.7	166.6	279.0	363.8
50°	67.0	70.0	133.1	246.5	330.3
52.5°	58.2	60.1	103.5	211.0	296.8
55°	50.3	52.3	79.9	180.4	261.3
57.5°	42.4	44.4	64.1	150.8	220.8
60°	35.5	37.5	55.2	120.3	183.4
62.5°	29.6	30.6	49.3	91.7	146.9
65°	23.7	25.6	42.4	67.0	111.4
67.5°	19.7	21.7	34.5	46.3	77.9
70°	16.8	21.7	28.6	32.5	48.3
72.5°	13.8	19.7	23.7	22.7	22.7
75°	11.8	18.7	19.7	17.7	17.7
77.5°	9.9	16.8	15.8	14.8	13.8
80°	7.9	13.8	13.8	11.8	10.8
82.5°	6.9	10.8	10.8	10.8	8.9
85°	5.9	9.9	9.9	8.9	6.9
87.5°	3.9	7.9	8.9	7.9	4.9
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	6.41	7.75	6.78	8.06	8.38	15.51	16.84	15.87	17.16	17.47
	3H	7.46	8.64	7.84	8.97	9.34	16.01	17.19	16.39	17.52	17.89
	4H	7.97	9.08	8.37	9.43	9.81	16.02	17.13	16.42	17.48	17.86
	6H	8.42	9.44	8.84	9.81	10.20	16.02	17.04	16.43	17.41	17.80
	8H	8.61	9.58	9.04	9.97	10.37	16.02	16.98	16.45	17.37	17.77
	12H	8.82	9.75	9.26	10.13	10.56	16.02	16.94	16.45	17.32	17.75
4H	2H	7.51	8.61	7.91	8.96	9.35	15.39	16.50	15.80	16.85	17.23
	3H	8.78	9.68	9.19	10.09	10.49	15.97	16.88	16.39	17.28	17.68
	4H	9.48	10.29	9.91	10.71	11.15	16.02	16.83	16.45	17.25	17.69
	6H	10.11	10.81	10.57	11.26	11.72	16.07	16.77	16.53	17.22	17.68
	8H	10.36	11.01	10.82	11.46	11.93	16.09	16.74	16.56	17.19	17.66
	12H	10.63	11.21	11.12	11.69	12.17	16.12	16.70	16.61	17.18	17.66
8H	4H	9.91	10.56	10.37	11.01	11.48	15.97	16.62	16.44	17.07	17.54
	6H	10.78	11.32	11.29	11.82	12.30	16.06	16.60	16.56	17.09	17.57
	8H	11.19	11.67	11.71	12.18	12.68	16.12	16.60	16.64	17.12	17.61
	12H	11.67	12.09	12.18	12.59	13.16	16.22	16.65	16.74	17.14	17.71
12H	4H	9.95	10.53	10.43	11.01	11.48	15.94	16.52	16.43	17.00	17.48
	6H	10.90	11.38	11.42	11.89	12.38	16.04	16.52	16.56	17.04	17.53
	8H	11.41	11.84	11.92	12.33	12.90	16.15	16.57	16.66	17.07	17.64