

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: P1060277

Luminaire Tested: S124RDRP-S1020D935-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060277  
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-S1020D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

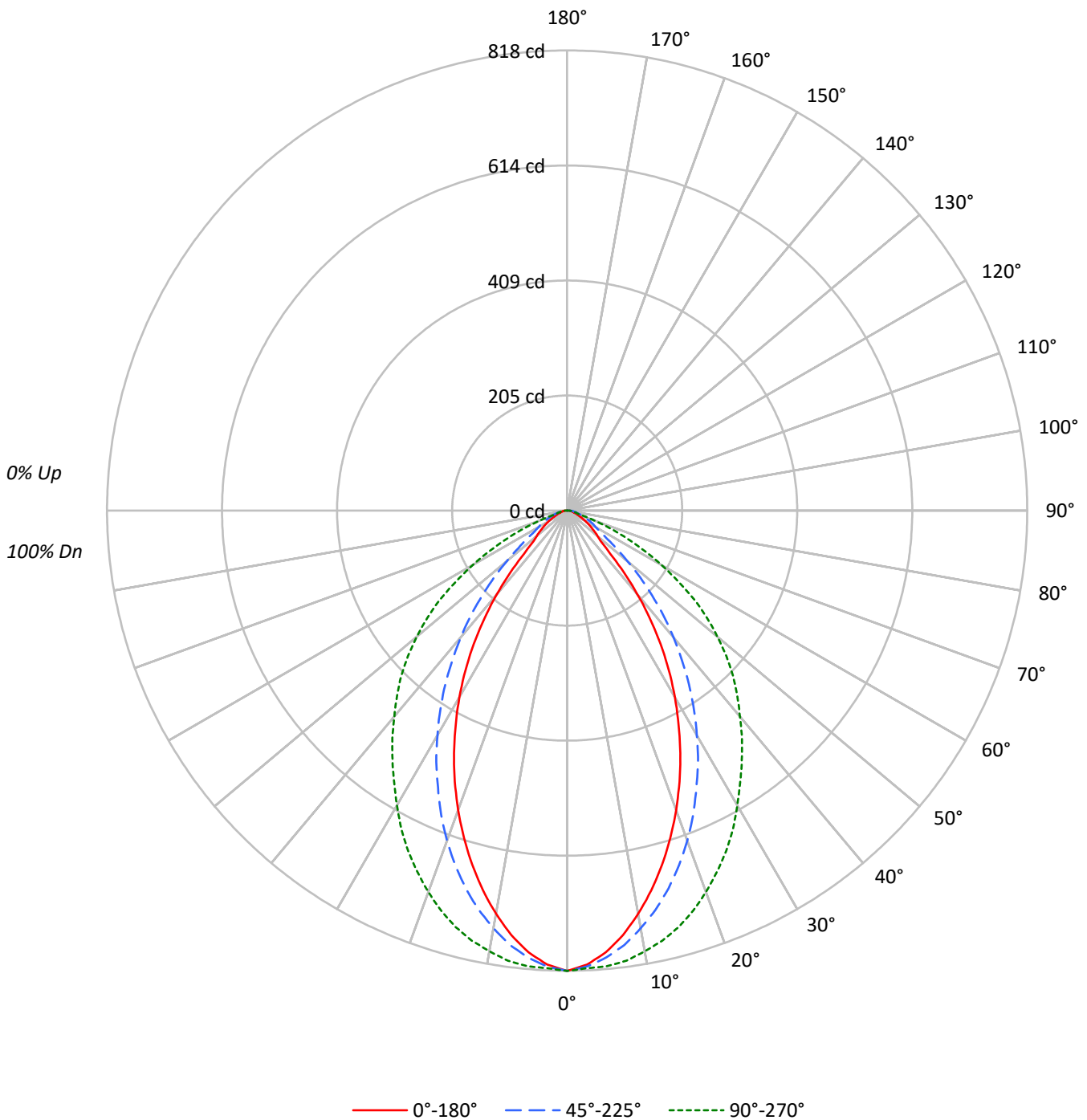
Lumens per Lamp: N/A  
Luminaire Lumens: 1150.7 lumens  
Efficiency: N/A  
Efficacy: 32.9 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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	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°	7046	7046	7046
5°	6812	6894	7028
10°	6364	6591	6955
15°	5811	6200	6831
20°	5190	5725	6612
25°	4521	5164	6351
30°	3809	4586	6015
35°	3042	3973	5691
40°	2189	3300	5372
45°	1319	2599	5084
50°	948	1884	4673
55°	797	1266	4142
60°	646	1004	3336
65°	509	913	2396
70°	446	760	1284
75°	416	692	622
80°	412	724	570
85°	613	1028	721

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5084 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.1	6.5
10°-20°	196.8	17.1
20°-30°	255.4	22.2
30°-40°	245.5	21.3
40°-50°	182.1	15.8
50°-60°	111.6	9.7
60°-70°	54.2	4.7
70°-80°	20.6	1.8
80°-90°	9.3	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°	527.4	45.8
0°-40°	772.9	67.2
0°-60°	1066.6	92.7
0°-90°	1150.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1150.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	788	800	798	805	813	73
15°	652	670	696	737	766	182
25°	476	500	544	613	668	218
35°	289	316	378	468	541	179
45°	108	135	213	326	418	90
55°	53	55	84	190	276	48
65°	25	27	45	71	118	26
75°	12	20	21	19	19	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°	818.3	818.3	818.3	818.3	818.3
2.5°	807.9	817.3	811.1	813.1	814.2
5°	788.1	799.6	797.5	804.8	813.1
7.5°	761.1	774.6	778.8	793.4	806.9
10°	727.8	744.4	753.8	777.7	795.4
12.5°	691.3	709.0	726.7	759.0	782.9
15°	651.8	670.5	695.5	737.1	766.3
17.5°	610.1	630.9	661.1	711.1	745.5
20°	566.4	588.2	624.7	679.9	721.5
22.5°	521.6	544.5	585.1	646.6	695.5
25°	475.8	499.7	543.5	613.2	668.4
27.5°	429.0	453.9	503.9	577.8	638.2
30°	383.1	407.1	461.2	541.4	604.9
32.5°	336.3	361.3	419.6	503.9	572.6
35°	289.4	315.5	377.9	467.5	541.4
37.5°	241.5	269.7	335.2	432.1	510.2
40°	194.7	221.8	293.6	395.6	477.9
42.5°	148.9	178.0	254.0	359.2	447.7
45°	108.3	135.3	213.4	325.9	417.5
47.5°	81.2	97.9	176.0	294.6	384.2
50°	70.8	73.9	140.6	260.3	348.8
52.5°	61.4	63.5	109.3	222.8	313.4
55°	53.1	55.2	84.3	190.5	275.9
57.5°	44.8	46.9	67.7	159.3	233.2
60°	37.5	39.6	58.3	127.0	193.7
62.5°	31.2	32.3	52.1	96.8	155.1
65°	25.0	27.1	44.8	70.8	117.6
67.5°	20.8	22.9	36.4	48.9	82.3
70°	17.7	22.9	30.2	34.4	51.0
72.5°	14.6	20.8	25.0	23.9	23.9
75°	12.5	19.8	20.8	18.7	18.7
77.5°	10.4	17.7	16.7	15.6	14.6
80°	8.3	14.6	14.6	12.5	11.5
82.5°	7.3	11.5	11.5	11.5	9.4
85°	6.2	10.4	10.4	9.4	7.3
87.5°	4.2	8.3	9.4	8.3	5.2
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	6.60	7.94	6.97	8.25	8.57	15.70	17.04	16.06	17.35	17.66
	3H	7.65	8.83	8.03	9.16	9.53	16.20	17.39	16.58	17.72	18.08
	4H	8.16	9.27	8.56	9.62	10.00	16.21	17.32	16.61	17.67	18.05
	6H	8.61	9.63	9.02	10.00	10.39	16.21	17.23	16.63	17.60	17.99
	8H	8.80	9.76	9.23	10.15	10.56	16.21	17.17	16.64	17.56	17.97
	12H	9.01	9.93	9.44	10.32	10.75	16.21	17.13	16.64	17.51	17.94
4H	2H	7.70	8.80	8.10	9.15	9.54	15.59	16.69	15.99	17.04	17.43
	3H	8.97	9.87	9.38	10.27	10.68	16.16	17.07	16.58	17.47	17.88
	4H	9.67	10.48	10.11	10.90	11.34	16.21	17.02	16.65	17.44	17.88
	6H	10.30	11.00	10.76	11.45	11.91	16.26	16.96	16.73	17.41	17.87
	8H	10.55	11.20	11.02	11.65	12.12	16.28	16.93	16.75	17.38	17.85
	12H	10.82	11.40	11.31	11.88	12.36	16.31	16.89	16.80	17.38	17.85
8H	4H	10.10	10.75	10.57	11.20	11.67	16.16	16.81	16.63	17.26	17.73
	6H	10.98	11.51	11.48	12.01	12.49	16.25	16.79	16.76	17.29	17.77
	8H	11.38	11.86	11.90	12.38	12.87	16.32	16.80	16.84	17.31	17.80
	12H	11.86	12.28	12.37	12.78	13.35	16.42	16.84	16.93	17.34	17.91
12H	4H	10.14	10.72	10.63	11.20	11.68	16.13	16.71	16.62	17.19	17.67
	6H	11.09	11.57	11.61	12.08	12.58	16.23	16.71	16.75	17.23	17.72
	8H	11.61	12.03	12.12	12.53	13.10	16.34	16.76	16.85	17.26	17.83