

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: P1060853

Luminaire Tested: S124RDRP-H350D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060853  
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-H350D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

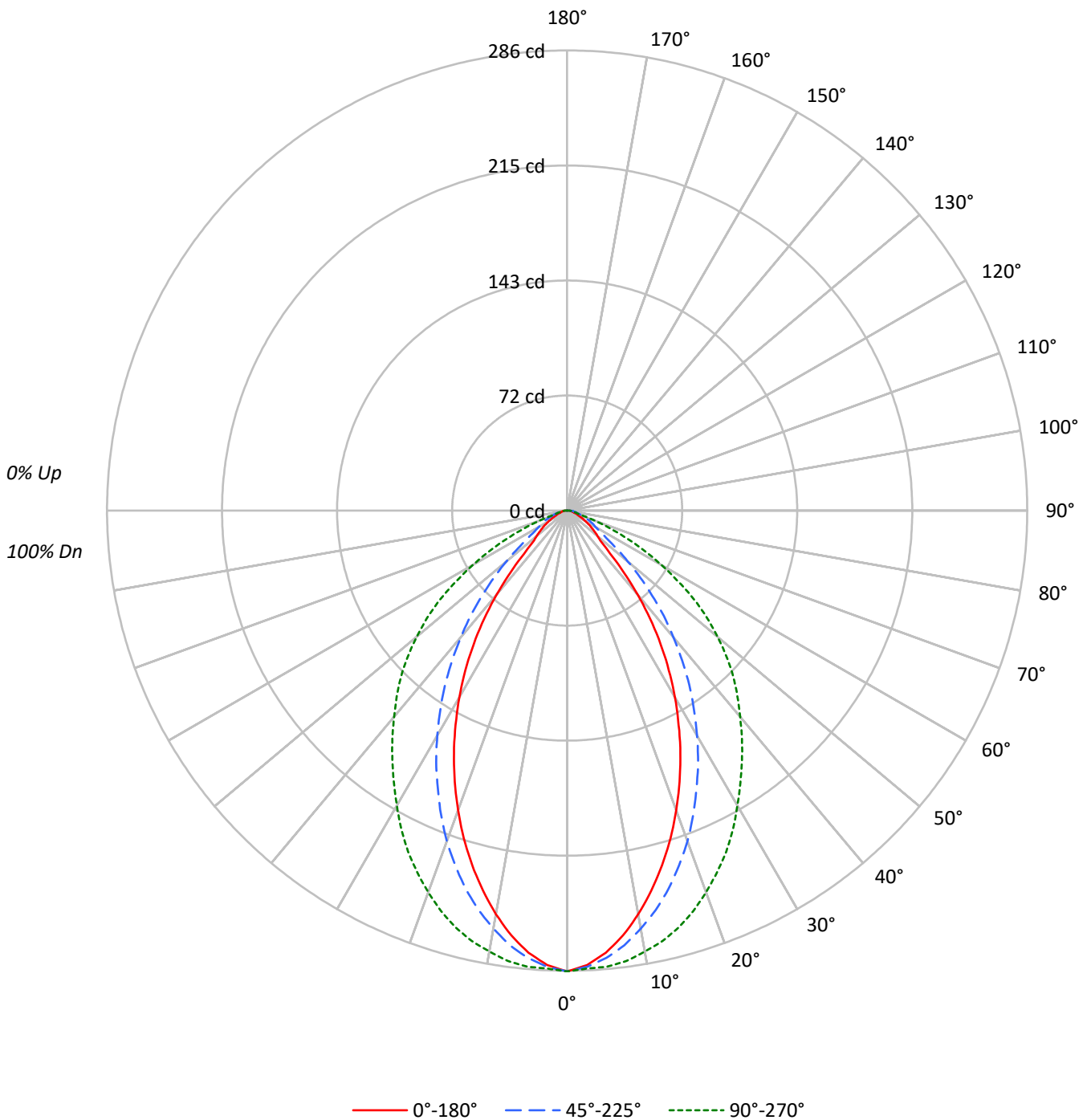
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 402.7 lumens  
Efficiency: N/A  
Efficacy: 34.4 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): 11.7  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	54	46	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	2466	2466	2466
5°	2384	2413	2459
10°	2227	2307	2433
15°	2033	2170	2390
20°	1816	2003	2314
25°	1582	1807	2222
30°	1333	1605	2105
35°	1065	1391	1991
40°	766	1154	1880
45°	462	910	1779
50°	332	659	1634
55°	279	443	1449
60°	226	351	1168
65°	177	320	839
70°	156	267	451
75°	146	243	220
80°	144	253	198
85°	217	356	257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1779 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.3	6.5
10°-20°	68.9	17.1
20°-30°	89.4	22.2
30°-40°	85.9	21.3
40°-50°	63.7	15.8
50°-60°	39.0	9.7
60°-70°	19.0	4.7
70°-80°	7.2	1.8
80°-90°	3.2	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°	184.5	45.8
0°-40°	270.4	67.2
0°-60°	373.2	92.7
0°-90°	402.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	402.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	286	286	286	286	286	
5°	276	280	279	282	284	26
15°	228	235	243	258	268	64
25°	166	175	190	215	234	76
35°	101	110	132	164	189	63
45°	38	47	75	114	146	31
55°	19	19	30	67	96	17
65°	9	10	16	25	41	9
75°	4	7	7	7	7	5
85°	2	4	4	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	286.4	286.4	286.4	286.4	286.4
2.5°	282.7	286.0	283.8	284.5	284.9
5°	275.8	279.8	279.1	281.6	284.5
7.5°	266.3	271.1	272.5	277.6	282.4
10°	254.7	260.5	263.8	272.2	278.3
12.5°	241.9	248.1	254.3	265.6	274.0
15°	228.1	234.6	243.4	257.9	268.1
17.5°	213.5	220.8	231.3	248.8	260.9
20°	198.2	205.8	218.6	237.9	252.5
22.5°	182.5	190.5	204.8	226.2	243.4
25°	166.5	174.9	190.2	214.6	233.9
27.5°	150.1	158.8	176.3	202.2	223.3
30°	134.1	142.5	161.4	189.4	211.7
32.5°	117.7	126.4	146.8	176.3	200.4
35°	101.3	110.4	132.3	163.6	189.4
37.5°	84.5	94.4	117.3	151.2	178.5
40°	68.1	77.6	102.7	138.4	167.2
42.5°	52.1	62.3	88.9	125.7	156.7
45°	37.9	47.4	74.7	114.0	146.1
47.5°	28.4	34.2	61.6	103.1	134.4
50°	24.8	25.9	49.2	91.1	122.0
52.5°	21.5	22.2	38.3	78.0	109.7
55°	18.6	19.3	29.5	66.7	96.5
57.5°	15.7	16.4	23.7	55.7	81.6
60°	13.1	13.8	20.4	44.4	67.8
62.5°	10.9	11.3	18.2	33.9	54.3
65°	8.7	9.5	15.7	24.8	41.2
67.5°	7.3	8.0	12.8	17.1	28.8
70°	6.2	8.0	10.6	12.0	17.9
72.5°	5.1	7.3	8.7	8.4	8.4
75°	4.4	6.9	7.3	6.6	6.6
77.5°	3.6	6.2	5.8	5.5	5.1
80°	2.9	5.1	5.1	4.4	4.0
82.5°	2.6	4.0	4.0	4.0	3.3
85°	2.2	3.6	3.6	3.3	2.6
87.5°	1.5	2.9	3.3	2.9	1.8
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	2.95	4.29	3.32	4.60	4.92	12.04	13.38	12.41	13.70	14.01
	3H	4.00	5.18	4.37	5.51	5.88	12.55	13.73	12.93	14.06	14.43
	4H	4.51	5.62	4.91	5.97	6.35	12.56	13.67	12.96	14.02	14.40
	6H	4.96	5.97	5.37	6.34	6.74	12.56	13.58	12.98	13.95	14.34
	8H	5.15	6.11	5.58	6.51	6.91	12.56	13.52	12.99	13.91	14.32
	12H	5.37	6.29	5.80	6.67	7.10	12.56	13.48	12.99	13.86	14.29
4H	2H	4.05	5.16	4.45	5.51	5.89	11.93	13.04	12.34	13.39	13.77
	3H	5.32	6.22	5.73	6.63	7.03	12.51	13.42	12.93	13.82	14.22
	4H	6.02	6.83	6.46	7.25	7.69	12.56	13.37	13.00	13.79	14.23
	6H	6.65	7.35	7.11	7.79	8.26	12.61	13.31	13.08	13.76	14.23
	8H	6.90	7.55	7.37	8.00	8.47	12.63	13.29	13.10	13.73	14.20
	12H	7.17	7.75	7.66	8.24	8.71	12.67	13.24	13.15	13.73	14.20
8H	4H	6.45	7.10	6.92	7.55	8.02	12.51	13.16	12.98	13.61	14.08
	6H	7.32	7.86	7.82	8.35	8.83	12.61	13.14	13.11	13.64	14.12
	8H	7.73	8.21	8.25	8.72	9.22	12.67	13.15	13.19	13.66	14.15
	12H	8.21	8.63	8.72	9.13	9.70	12.77	13.19	13.28	13.69	14.26
12H	4H	6.49	7.07	6.98	7.55	8.02	12.48	13.06	12.97	13.54	14.02
	6H	7.43	7.91	7.95	8.43	8.92	12.58	13.07	13.10	13.58	14.07
	8H	7.95	8.38	8.47	8.87	9.44	12.69	13.12	13.20	13.61	14.18