

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: P1060415

Luminaire Tested: S124RDR-S350D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060415  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D850-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

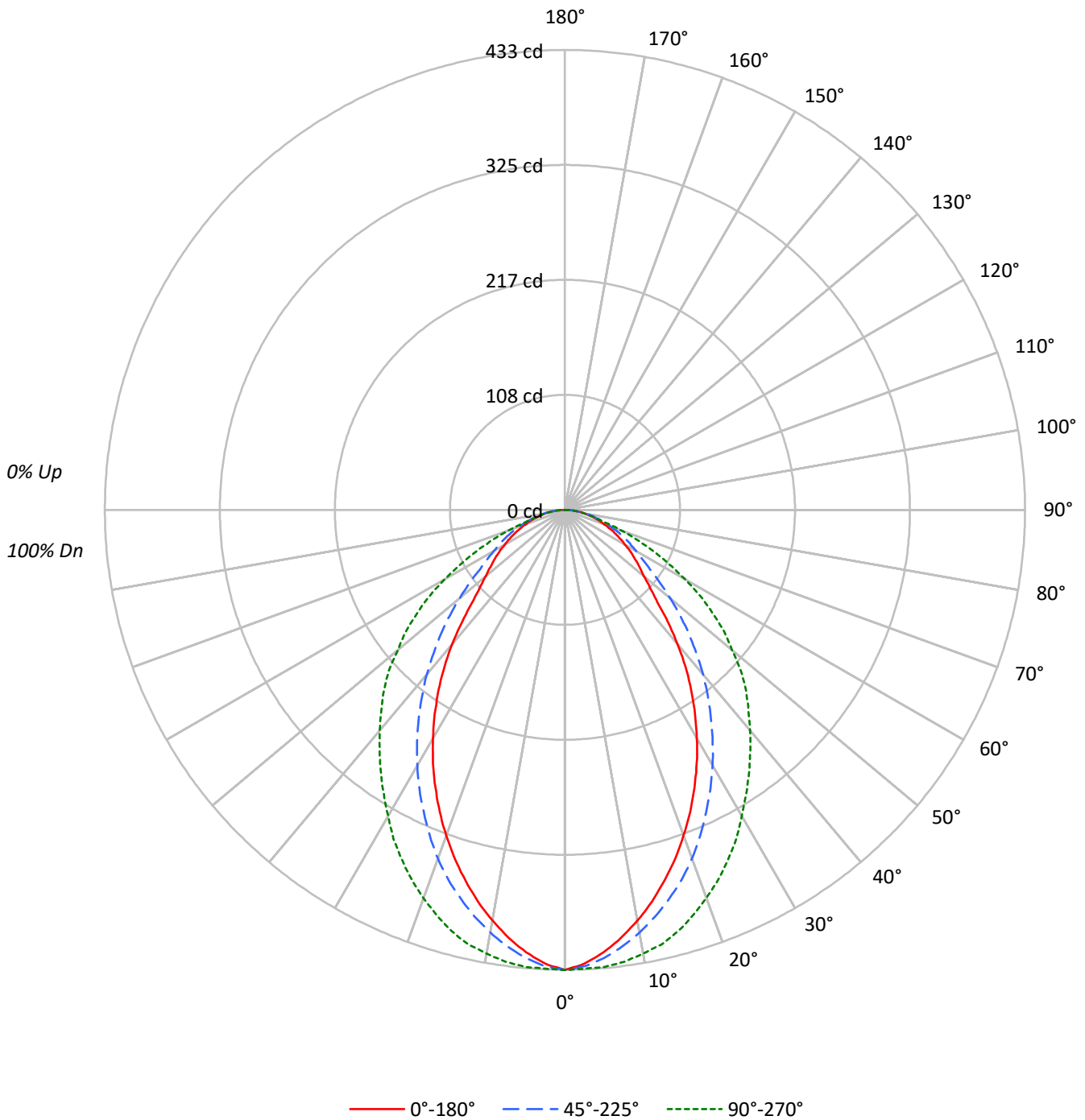
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 788.6 lumens  
Efficiency: N/A  
Efficacy: 63.1 lumens/watt  
Spacing Criteria (0/90/45): 0.92 / 1.15 / 1.1  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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: P1060415

CATALOG NUMBER: S124RDR-S350D850-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1060415

CATALOG NUMBER: S124RDR-S350D850-X4F0-XX-UDD-WVL-S

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87													87															
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75													75															
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65													65															
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57													57															
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50													50															
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45													45															
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41													41															
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37													37															
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34													34															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31													31															

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

	0°	45°	90°
0°	3730	3730	3730
5°	3615	3662	3732
10°	3435	3533	3708
15°	3222	3380	3663
20°	2992	3204	3566
25°	2739	2985	3452
30°	2470	2763	3309
35°	2177	2520	3175
40°	1853	2272	3047
45°	1504	2007	2936
50°	1302	1728	2749
55°	1207	1465	2549
60°	1126	1321	2237
65°	1055	1239	1860
70°	982	1143	1407
75°	938	1058	1011
80°	878	967	858
85°	810	899	672

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2936 cd/sqm



TEST NUMBER: P1060415

CATALOG NUMBER: S124RDR-S350D850-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.0	5.1
10°-20°	107.5	13.6
20°-30°	146.8	18.6
30°-40°	153.8	19.5
40°-50°	133.1	16.9
50°-60°	100.0	12.7
60°-70°	64.5	8.2
70°-80°	33.1	4.2
80°-90°	9.9	1.3
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°	294.3	37.3
0°-40°	448.1	56.8
0°-60°	681.2	86.4
0°-90°	788.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	788.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	433	433	433	433	433	
5°	418	425	424	427	432	39
15°	361	370	379	396	411	101
25°	288	299	314	339	363	132
35°	207	219	240	272	302	129
45°	124	136	165	205	241	97
55°	80	83	98	139	170	72
65°	52	53	61	74	91	51
75°	28	31	32	31	30	30
85°	8	10	9	9	7	9
90°	0	0	0	0	0	



TEST NUMBER: P1060415

CATALOG NUMBER: S124RDR-S350D850-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	433.2	433.2	433.2	433.2	433.2
2.5°	427.7	433.2	430.0	430.9	432.3
5°	418.2	424.6	423.6	426.8	431.8
7.5°	406.4	413.2	414.6	421.8	429.1
10°	392.8	400.5	404.1	415.0	424.1
12.5°	377.8	386.0	392.3	405.9	419.1
15°	361.4	370.5	379.1	396.4	410.9
17.5°	344.6	353.7	365.1	384.1	400.5
20°	326.5	336.5	349.6	369.6	389.1
22.5°	307.9	318.3	332.4	354.2	376.9
25°	288.3	299.2	314.2	338.7	363.3
27.5°	268.8	279.7	296.5	322.4	349.2
30°	248.4	259.7	277.9	306.0	332.8
32.5°	227.9	240.2	258.8	288.8	317.4
35°	207.1	218.9	239.7	271.5	302.0
37.5°	186.2	198.4	220.7	254.7	286.5
40°	164.8	177.5	202.1	237.9	271.1
42.5°	143.5	157.1	183.0	220.7	255.6
45°	123.5	136.2	164.8	205.2	241.1
47.5°	108.5	117.1	146.7	190.3	224.8
50°	97.2	101.7	129.0	173.9	205.2
52.5°	88.5	91.7	112.6	156.2	189.3
55°	80.4	83.1	97.6	139.4	169.8
57.5°	73.1	74.5	86.3	123.1	151.2
60°	65.4	66.7	76.7	105.3	129.9
62.5°	58.6	59.5	69.0	88.5	110.3
65°	51.8	52.7	60.8	73.6	91.3
67.5°	45.4	46.8	53.1	59.9	72.7
70°	39.0	41.8	45.4	48.6	55.9
72.5°	33.6	36.3	38.1	39.0	39.5
75°	28.2	31.3	31.8	31.3	30.4
77.5°	22.7	25.4	25.4	24.5	23.6
80°	17.7	20.0	19.5	18.6	17.3
82.5°	13.2	14.5	14.1	13.2	11.8
85°	8.2	9.5	9.1	8.6	6.8
87.5°	4.1	5.4	5.0	4.5	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)