

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: P1060401

Luminaire Tested: S124RDR-S350D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060401  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S350D840-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

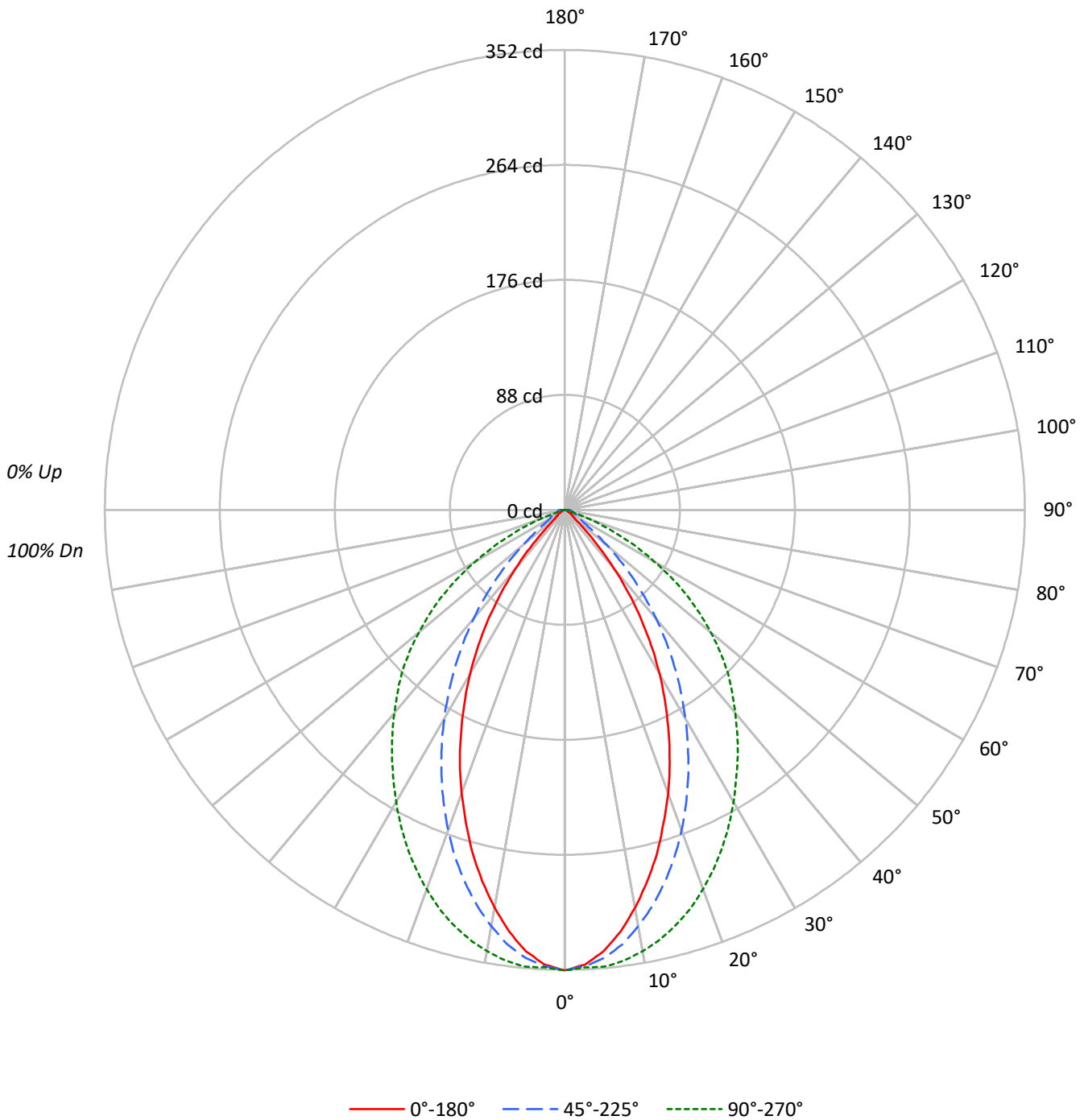
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 444.4 lumens  
Efficiency: N/A  
Efficacy: 35.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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: P1060401

CATALOG NUMBER: S124RDR-S350D840-X4F0-XX-UDD-BVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1060401

CATALOG NUMBER: S124RDR-S350D840-X4F0-XX-UDD-BVL-W

**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				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

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

	0°	45°	90°
0°	3035	3035	3035
5°	2933	2976	3033
10°	2703	2830	2999
15°	2428	2630	2933
20°	2116	2393	2833
25°	1785	2123	2709
30°	1440	1835	2567
35°	1066	1536	2423
40°	661	1223	2280
45°	262	891	2147
50°	117	560	1952
55°	93	291	1708
60°	64	220	1361
65°	43	220	935
70°	43	199	438
75°	57	193	193
80°	84	228	228
85°	168	454	326

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2147 cd/sqm



TEST NUMBER: P1060401

CATALOG NUMBER: S124RDR-S350D840-X4F0-XX-UDD-BVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.3	7.3
10°-20°	83.5	18.8
20°-30°	105.4	23.7
30°-40°	96.7	21.8
40°-50°	65.8	14.8
50°-60°	35.9	8.1
60°-70°	15.5	3.5
70°-80°	5.7	1.3
80°-90°	3.7	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°	221.2	49.8
0°-40°	317.8	71.5
0°-60°	419.5	94.4
0°-90°	444.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	444.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	352	352	352	352	352	
5°	339	344	344	348	351	31
15°	272	282	295	316	329	76
25°	188	201	223	259	285	86
35°	101	116	146	192	230	63
45°	22	36	73	130	176	20
55°	6	7	19	72	114	6
65°	2	3	11	22	46	2
75°	2	5	6	6	6	2
85°	2	4	5	5	3	1
90°	0	0	0	0	0	



TEST NUMBER: P1060401

CATALOG NUMBER: S124RDR-S350D840-X4F0-XX-UDD-BVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	352.5	352.5	352.5	352.5	352.5
2.5°	348.4	352.5	349.6	350.5	350.5
5°	339.3	343.9	344.3	348.0	350.9
7.5°	325.7	332.3	335.6	343.0	348.0
10°	309.1	317.0	323.6	336.4	343.0
12.5°	291.3	300.4	310.3	327.3	336.8
15°	272.3	281.8	295.0	316.1	329.0
17.5°	251.2	262.8	278.9	304.1	319.9
20°	230.9	242.5	261.1	289.7	309.1
22.5°	209.8	221.8	242.5	274.3	297.5
25°	187.9	201.1	223.4	259.0	285.1
27.5°	166.3	180.4	204.0	242.9	271.9
30°	144.8	158.9	184.5	226.3	258.2
32.5°	122.9	137.4	165.1	209.0	244.1
35°	101.4	116.3	146.1	192.4	230.5
37.5°	79.4	95.2	127.0	176.3	216.8
40°	58.8	74.5	108.8	160.1	202.8
42.5°	39.3	55.0	90.2	144.4	189.5
45°	21.5	36.0	73.2	129.9	176.3
47.5°	11.6	19.9	56.7	115.9	161.4
50°	8.7	10.8	41.8	101.0	145.7
52.5°	7.4	8.3	29.0	85.2	129.9
55°	6.2	6.6	19.4	71.6	113.8
57.5°	5.0	5.4	14.5	57.9	96.4
60°	3.7	4.6	12.8	44.7	79.0
62.5°	2.9	3.7	12.0	32.7	62.5
65°	2.1	2.9	10.8	22.3	45.9
67.5°	2.1	3.3	9.1	14.5	31.0
70°	1.7	4.6	7.9	9.5	17.4
72.5°	1.7	5.0	6.6	6.6	6.6
75°	1.7	5.4	5.8	5.8	5.8
77.5°	1.7	5.0	5.4	5.0	5.0
80°	1.7	4.6	4.6	4.6	4.6
82.5°	1.7	4.1	4.6	4.6	3.7
85°	1.7	3.7	4.6	4.6	3.3
87.5°	1.2	3.7	4.1	4.1	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)