

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: P1060419

Luminaire Tested: S124RDRP-S350D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060419  
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: S124RDRP-S350D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

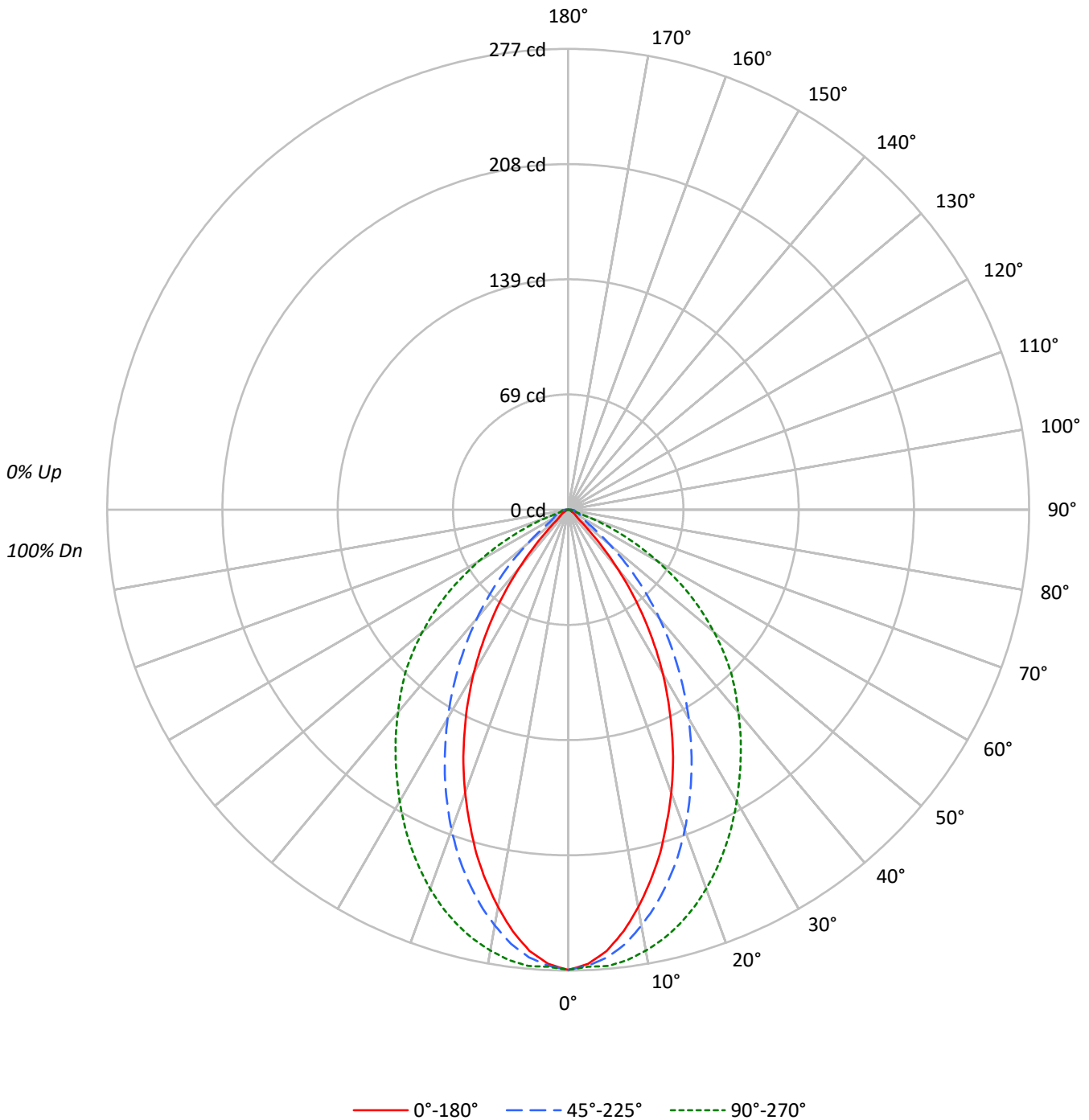
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 348.6 lumens  
Efficiency: N/A  
Efficacy: 27.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96  
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 (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	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°	2382	2382	2382
5°	2301	2335	2380
10°	2120	2219	2353
15°	1904	2063	2301
20°	1660	1877	2222
25°	1400	1666	2124
30°	1130	1440	2014
35°	836	1205	1901
40°	518	960	1787
45°	206	700	1684
50°	91	439	1531
55°	74	230	1341
60°	50	174	1068
65°	33	171	734
70°	33	156	342
75°	43	150	150
80°	64	179	179
85°	128	356	257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1684 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.4	7.3
10°-20°	65.5	18.8
20°-30°	82.6	23.7
30°-40°	75.8	21.8
40°-50°	51.6	14.8
50°-60°	28.1	8.1
60°-70°	12.2	3.5
70°-80°	4.4	1.3
80°-90°	2.9	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°	173.5	49.8
0°-40°	249.3	71.5
0°-60°	329.1	94.4
0°-90°	348.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	348.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	277	277	277	277	277	
5°	266	270	270	273	275	25
15°	214	221	231	248	258	59
25°	147	158	175	203	224	67
35°	80	91	115	151	181	49
45°	17	28	58	102	138	16
55°	5	5	15	56	89	4
65°	2	2	8	18	36	2
75°	1	4	4	4	4	1
85°	1	3	4	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	276.6	276.6	276.6	276.6	276.6
2.5°	273.3	276.6	274.3	274.9	274.9
5°	266.2	269.7	270.1	273.0	275.3
7.5°	255.5	260.6	263.2	269.1	273.0
10°	242.5	248.6	253.8	263.9	269.1
12.5°	228.5	235.7	243.4	256.8	264.2
15°	213.6	221.0	231.4	248.0	258.1
17.5°	197.0	206.1	218.8	238.6	250.9
20°	181.1	190.2	204.8	227.2	242.5
22.5°	164.6	174.0	190.2	215.2	233.4
25°	147.4	157.8	175.3	203.2	223.6
27.5°	130.5	141.5	160.0	190.5	213.3
30°	113.6	124.6	144.8	177.6	202.5
32.5°	96.4	107.8	129.5	163.9	191.5
35°	79.5	91.2	114.6	150.9	180.8
37.5°	62.3	74.7	99.6	138.3	170.1
40°	46.1	58.4	85.4	125.6	159.0
42.5°	30.8	43.2	70.8	113.3	148.7
45°	16.9	28.2	57.5	101.9	138.3
47.5°	9.1	15.6	44.5	90.9	126.6
50°	6.8	8.4	32.8	79.2	114.3
52.5°	5.8	6.5	22.7	66.9	101.9
55°	4.9	5.2	15.3	56.2	89.3
57.5°	3.9	4.2	11.4	45.4	75.6
60°	2.9	3.6	10.1	35.1	62.0
62.5°	2.3	2.9	9.4	25.6	49.0
65°	1.6	2.3	8.4	17.5	36.0
67.5°	1.6	2.6	7.1	11.4	24.3
70°	1.3	3.6	6.2	7.5	13.6
72.5°	1.3	3.9	5.2	5.2	5.2
75°	1.3	4.2	4.5	4.5	4.5
77.5°	1.3	3.9	4.2	3.9	3.9
80°	1.3	3.6	3.6	3.6	3.6
82.5°	1.3	3.2	3.6	3.6	2.9
85°	1.3	2.9	3.6	3.6	2.6
87.5°	1.0	2.9	3.2	3.2	1.9
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	0.00	0.00	0.00	0.00	0.00	11.42	12.70	11.78	13.01	13.32
	3H	0.00	0.00	0.00	0.00	0.00	11.80	12.93	12.18	13.26	13.62
	4H	0.00	0.00	0.00	0.00	0.00	11.77	12.82	12.18	13.18	13.56
	6H	0.00	0.00	0.00	0.00	0.00	11.76	12.73	12.18	13.10	13.49
	8H	0.00	0.00	0.00	0.00	0.18	11.76	12.68	12.19	13.07	13.47
	12H	0.00	0.01	0.00	0.39	0.82	11.77	12.65	12.21	13.03	13.46
4H	2H	0.00	0.00	0.00	0.00	0.00	11.23	12.28	11.63	12.63	13.02
	3H	0.00	0.10	0.00	0.51	0.91	11.65	12.51	12.06	12.91	13.32
	4H	0.53	1.30	0.97	1.72	2.16	11.65	12.41	12.08	12.83	13.28
	6H	1.67	2.34	2.14	2.78	3.25	11.69	12.35	12.15	12.80	13.26
	8H	2.18	2.80	2.65	3.24	3.72	11.72	12.33	12.19	12.78	13.25
	12H	2.73	3.27	3.21	3.75	4.23	11.78	12.33	12.27	12.81	13.29
8H	4H	1.62	2.23	2.09	2.68	3.15	11.56	12.17	12.03	12.62	13.09
	6H	3.18	3.68	3.68	4.18	4.66	11.64	12.14	12.14	12.64	13.12
	8H	3.97	4.43	4.50	4.94	5.44	11.72	12.18	12.25	12.69	13.19
	12H	4.80	5.20	5.31	5.69	6.27	11.89	12.30	12.41	12.79	13.36
12H	4H	1.81	2.36	2.30	2.84	3.31	11.52	12.07	12.01	12.55	13.02
	6H	3.54	3.99	4.06	4.51	5.00	11.61	12.07	12.13	12.58	13.07
	8H	4.54	4.94	5.05	5.43	6.01	11.75	12.15	12.27	12.65	13.22