

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: P1060459

Luminaire Tested: S124RDRP-S350D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060459  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S350D950-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

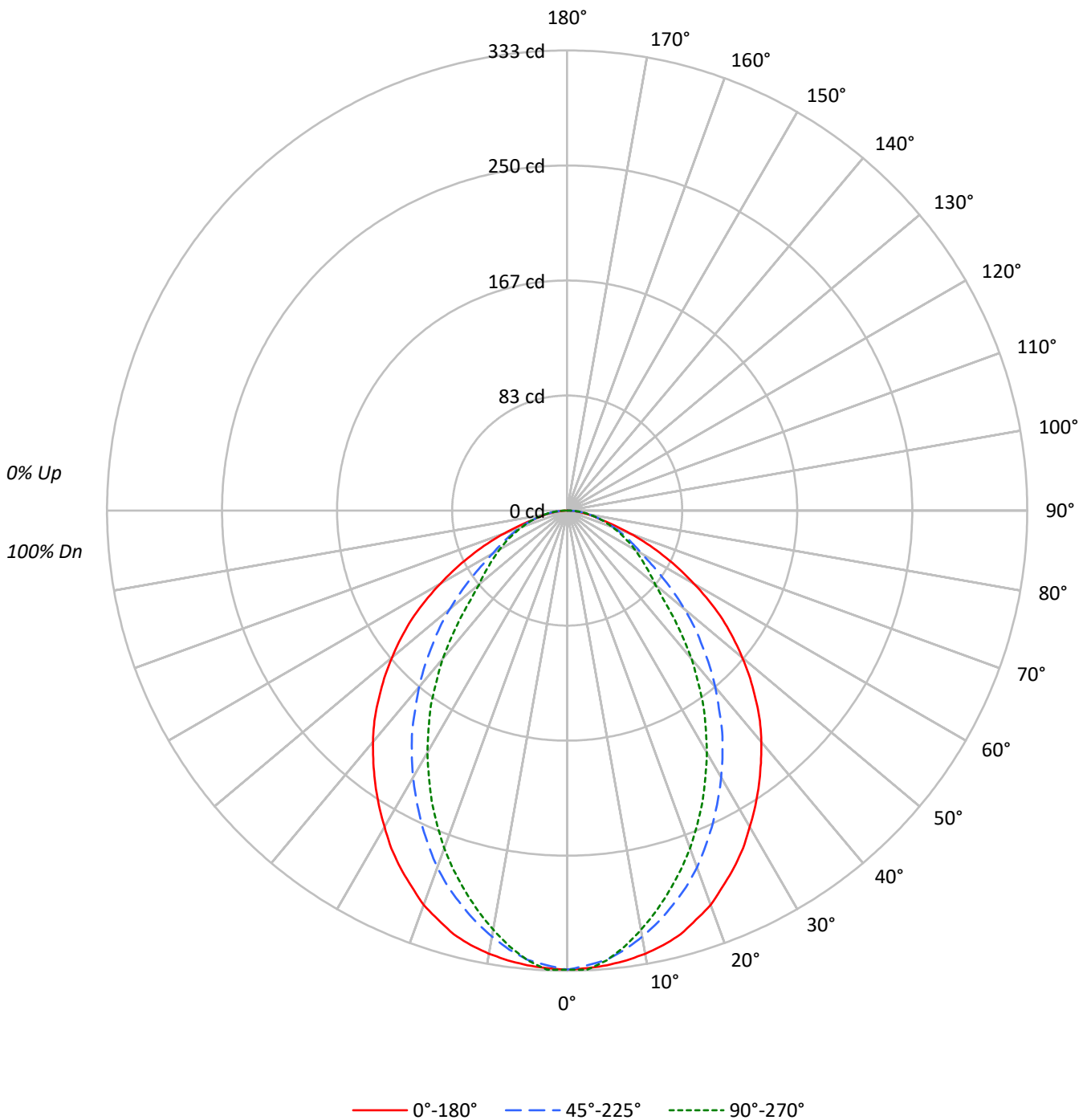
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 640.6 lumens  
Efficiency: N/A  
Efficacy: 51.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	2861	2861	2861
5°	2855	2821	2825
10°	2847	2738	2693
15°	2830	2634	2541
20°	2783	2518	2383
25°	2712	2371	2203
30°	2628	2216	2011
35°	2544	2056	1806
40°	2457	1874	1575
45°	2349	1683	1316
50°	2217	1486	1115
55°	2063	1260	1031
60°	1829	1070	975
65°	1559	986	923
70°	1219	914	874
75°	832	845	845
80°	714	793	813
85°	613	771	850

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2349 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.9	4.8
10°-20°	83.9	13.1
20°-30°	116.5	18.2
30°-40°	124.9	19.5
40°-50°	110.7	17.3
50°-60°	83.4	13.0
60°-70°	54.0	8.4
70°-80°	27.7	4.3
80°-90°	8.5	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°	231.4	36.1
0°-40°	356.3	55.6
0°-60°	550.4	85.9
0°-90°	640.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	640.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	332	332	332	332	332	
5°	330	331	326	327	327	31
15°	317	310	296	288	285	89
25°	285	270	250	236	232	131
35°	242	220	196	178	172	151
45°	193	168	138	117	108	149
55°	137	114	84	71	69	122
65°	76	62	48	46	45	76
75°	25	26	25	25	25	30
85°	6	7	8	9	9	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	332.2	332.2	332.2	332.2	332.2
2.5°	331.4	332.6	329.5	331.8	332.6
5°	330.3	330.7	326.4	326.8	326.8
7.5°	328.3	327.5	320.5	318.6	318.2
10°	325.6	323.2	313.1	309.2	308.0
12.5°	322.1	317.8	304.9	299.4	297.1
15°	317.4	310.4	295.5	288.1	285.0
17.5°	310.4	301.4	285.8	276.4	272.9
20°	303.7	291.6	274.8	263.1	260.0
22.5°	294.4	281.5	262.3	249.8	245.9
25°	285.4	270.1	249.5	236.2	231.9
27.5°	275.6	258.4	236.2	222.1	216.7
30°	264.3	245.9	222.9	208.1	202.2
32.5°	253.4	233.8	209.2	192.9	186.6
35°	242.0	220.2	195.6	178.0	171.8
37.5°	230.3	207.3	180.4	163.2	155.0
40°	218.6	194.4	166.7	147.2	140.1
42.5°	206.5	181.1	152.6	132.3	123.4
45°	192.9	167.9	138.2	116.7	108.1
47.5°	179.6	155.0	124.9	101.5	93.7
50°	165.5	141.3	110.9	88.2	83.2
52.5°	151.5	127.3	97.2	78.1	75.7
55°	137.4	114.4	83.9	70.7	68.7
57.5°	121.8	101.1	72.2	64.0	62.5
60°	106.2	86.7	62.1	57.8	56.6
62.5°	91.0	74.2	55.0	51.5	50.8
65°	76.5	61.7	48.4	45.7	45.3
67.5°	62.5	50.8	42.2	40.6	39.8
70°	48.4	40.6	36.3	35.5	34.7
72.5°	35.9	32.8	30.8	30.5	30.1
75°	25.0	26.2	25.4	25.4	25.4
77.5°	19.9	20.3	20.7	21.1	20.7
80°	14.4	15.6	16.0	16.8	16.4
82.5°	10.2	10.9	12.1	12.5	12.9
85°	6.2	6.6	7.8	8.6	8.6
87.5°	2.7	3.1	3.9	4.7	5.1
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	14.09	15.59	14.46	15.90	16.22	10.65	12.15	11.02	12.47	12.78
	3H	15.30	16.64	15.67	16.97	17.33	12.35	13.69	12.73	14.02	14.38
	4H	15.60	16.86	16.00	17.21	17.59	13.03	14.29	13.43	14.64	15.02
	6H	15.81	16.97	16.22	17.34	17.73	13.58	14.74	13.99	15.11	15.50
	8H	15.86	16.97	16.29	17.36	17.76	13.80	14.90	14.22	15.29	15.69
	12H	15.90	16.96	16.33	17.34	17.77	13.97	15.03	14.40	15.41	15.84
4H	2H	14.23	15.49	14.63	15.84	16.22	11.31	12.57	11.71	12.92	13.30
	3H	15.64	16.68	16.05	17.08	17.48	13.22	14.27	13.63	14.67	15.07
	4H	16.06	17.00	16.50	17.42	17.86	14.03	14.97	14.46	15.38	15.82
	6H	16.39	17.20	16.84	17.65	18.11	14.72	15.53	15.17	15.98	16.44
	8H	16.48	17.25	16.95	17.69	18.16	14.99	15.75	15.45	16.20	16.67
	12H	16.55	17.24	17.04	17.72	18.19	15.22	15.90	15.70	16.38	16.85
8H	4H	16.19	16.95	16.65	17.40	17.87	14.34	15.11	14.81	15.55	16.02
	6H	16.61	17.24	17.11	17.73	18.21	15.17	15.81	15.67	16.30	16.78
	8H	16.77	17.33	17.28	17.84	18.33	15.54	16.11	16.05	16.62	17.11
	12H	16.89	17.40	17.40	17.89	18.45	15.87	16.38	16.38	16.87	17.43
12H	4H	16.20	16.88	16.68	17.36	17.83	14.37	15.06	14.86	15.53	16.01
	6H	16.63	17.20	17.15	17.71	18.20	15.23	15.80	15.75	16.31	16.80
	8H	16.84	17.35	17.35	17.84	18.40	15.67	16.17	16.18	16.66	17.23