

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: P1060423

Luminaire Tested: S124RDRP-S350D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060423  
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-S350D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

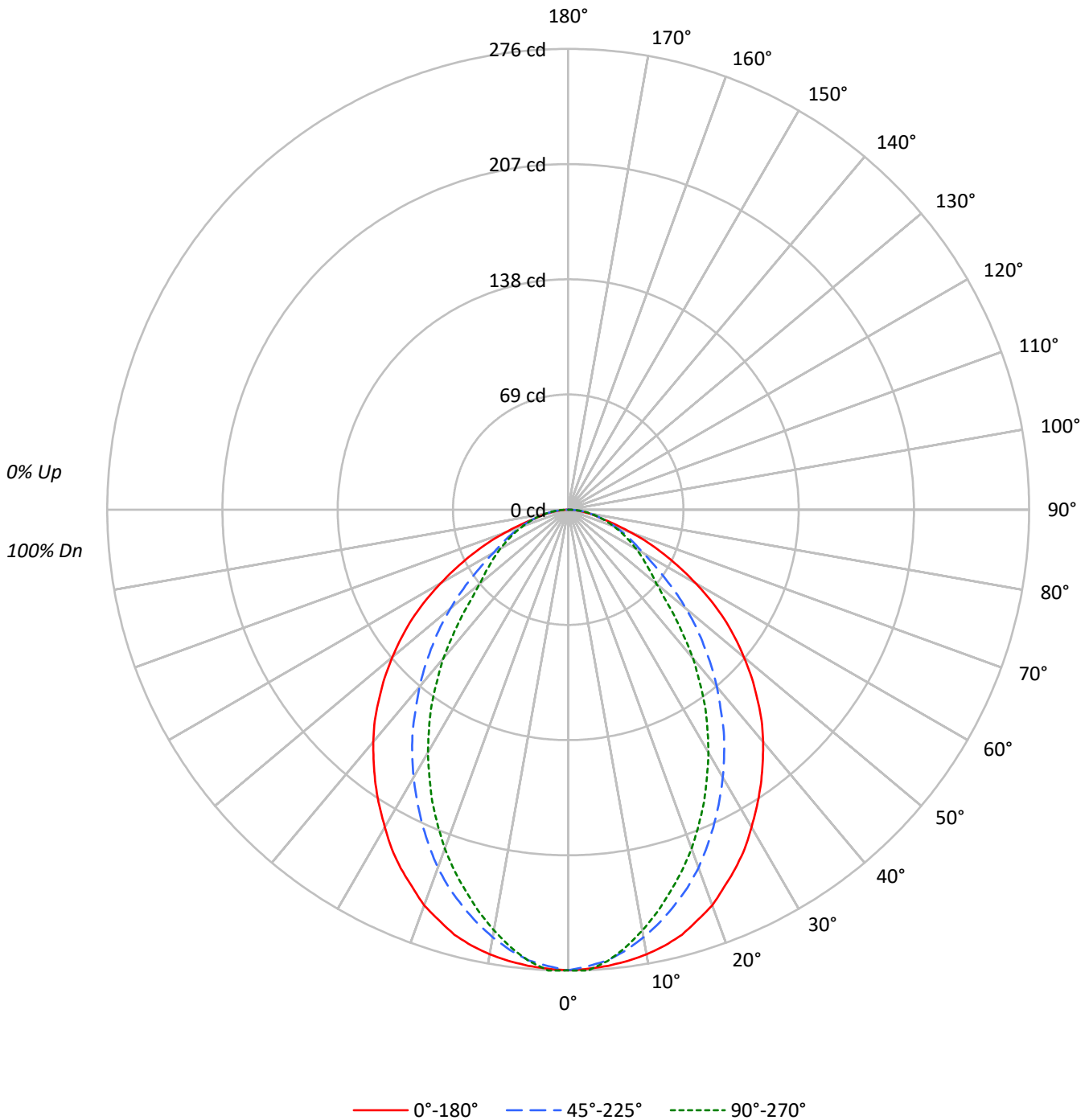
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 531.9 lumens  
Efficiency: N/A  
Efficacy: 42.6 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°	2376	2376	2376
5°	2370	2343	2345
10°	2364	2273	2237
15°	2349	2188	2109
20°	2311	2091	1978
25°	2252	1968	1830
30°	2183	1841	1669
35°	2113	1707	1499
40°	2040	1556	1308
45°	1950	1398	1094
50°	1841	1234	924
55°	1713	1046	857
60°	1519	887	809
65°	1294	819	766
70°	1012	758	728
75°	689	702	702
80°	595	660	674
85°	514	642	701

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1950 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.7	4.8
10°-20°	69.7	13.1
20°-30°	96.8	18.2
30°-40°	103.7	19.5
40°-50°	91.9	17.3
50°-60°	69.3	13.0
60°-70°	44.8	8.4
70°-80°	23.0	4.3
80°-90°	7.1	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°	192.1	36.1
0°-40°	295.9	55.6
0°-60°	457.0	85.9
0°-90°	531.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	531.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	276	276	276	276	276	
5°	274	275	271	271	271	26
15°	264	258	245	239	237	74
25°	237	224	207	196	193	109
35°	201	183	162	148	143	126
45°	160	139	115	97	90	123
55°	114	95	70	59	57	101
65°	64	51	40	38	38	63
75°	21	22	21	21	21	25
85°	5	6	6	7	7	6
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	275.9	275.9	275.9	275.9	275.9
2.5°	275.2	276.2	273.6	275.5	276.2
5°	274.2	274.6	271.0	271.3	271.3
7.5°	272.6	272.0	266.1	264.5	264.2
10°	270.4	268.4	260.0	256.7	255.8
12.5°	267.4	263.9	253.2	248.6	246.7
15°	263.5	257.7	245.4	239.2	236.6
17.5°	257.7	250.3	237.3	229.5	226.6
20°	252.2	242.2	228.2	218.5	215.9
22.5°	244.4	233.7	217.8	207.5	204.2
25°	237.0	224.3	207.1	196.1	192.6
27.5°	228.9	214.6	196.1	184.5	179.9
30°	219.5	204.2	185.1	172.8	167.9
32.5°	210.4	194.2	173.8	160.1	155.0
35°	201.0	182.8	162.4	147.8	142.6
37.5°	191.3	172.1	149.8	135.5	128.7
40°	181.5	161.4	138.4	122.2	116.4
42.5°	171.5	150.4	126.7	109.9	102.4
45°	160.1	139.4	114.8	96.9	89.8
47.5°	149.1	128.7	103.7	84.3	77.8
50°	137.4	117.3	92.1	73.3	69.0
52.5°	125.8	105.7	80.7	64.8	62.9
55°	114.1	95.0	69.7	58.7	57.1
57.5°	101.1	84.0	60.0	53.2	51.9
60°	88.2	72.0	51.5	48.0	47.0
62.5°	75.5	61.6	45.7	42.8	42.1
65°	63.5	51.2	40.2	37.9	37.6
67.5°	51.9	42.1	35.0	33.7	33.1
70°	40.2	33.7	30.1	29.5	28.9
72.5°	29.8	27.2	25.6	25.3	25.0
75°	20.7	21.7	21.1	21.1	21.1
77.5°	16.5	16.9	17.2	17.5	17.2
80°	12.0	13.0	13.3	13.9	13.6
82.5°	8.4	9.1	10.0	10.4	10.7
85°	5.2	5.5	6.5	7.1	7.1
87.5°	2.3	2.6	3.2	3.9	4.2
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	13.45	14.95	13.81	15.26	15.57	10.01	11.51	10.38	11.83	12.14
	3H	14.65	15.99	15.03	16.32	16.69	11.71	13.05	12.09	13.38	13.74
	4H	14.96	16.22	15.36	16.57	16.94	12.39	13.65	12.79	14.00	14.38
	6H	15.16	16.32	15.57	16.69	17.08	12.94	14.10	13.35	14.47	14.86
	8H	15.22	16.32	15.64	16.71	17.12	13.15	14.26	13.58	14.65	15.05
	12H	15.25	16.31	15.68	16.69	17.12	13.33	14.38	13.76	14.77	15.20
4H	2H	13.59	14.85	13.99	15.20	15.58	10.67	11.93	11.07	12.28	12.66
	3H	14.99	16.03	15.40	16.43	16.84	12.58	13.63	12.99	14.03	14.43
	4H	15.42	16.36	15.85	16.77	17.21	13.39	14.33	13.82	14.74	15.18
	6H	15.74	16.56	16.20	17.00	17.46	14.07	14.89	14.53	15.33	15.79
	8H	15.84	16.60	16.30	17.05	17.51	14.35	15.11	14.81	15.55	16.02
	12H	15.91	16.59	16.39	17.07	17.54	14.57	15.26	15.06	15.74	16.21
8H	4H	15.54	16.31	16.01	16.75	17.22	13.70	14.47	14.17	14.91	15.38
	6H	15.96	16.60	16.46	17.09	17.57	14.53	15.16	15.03	15.65	16.13
	8H	16.12	16.69	16.64	17.20	17.69	14.89	15.46	15.41	15.97	16.46
	12H	16.25	16.75	16.76	17.24	17.81	15.23	15.73	15.74	16.22	16.79
12H	4H	15.55	16.23	16.03	16.71	17.18	13.73	14.41	14.21	14.89	15.36
	6H	15.99	16.56	16.50	17.07	17.56	14.59	15.16	15.10	15.67	16.16
	8H	16.20	16.70	16.71	17.19	17.76	15.02	15.52	15.53	16.01	16.58