

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1060837

Luminaire Tested: S124RDR-H350D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060837  
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: S124RDR-H350D930-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

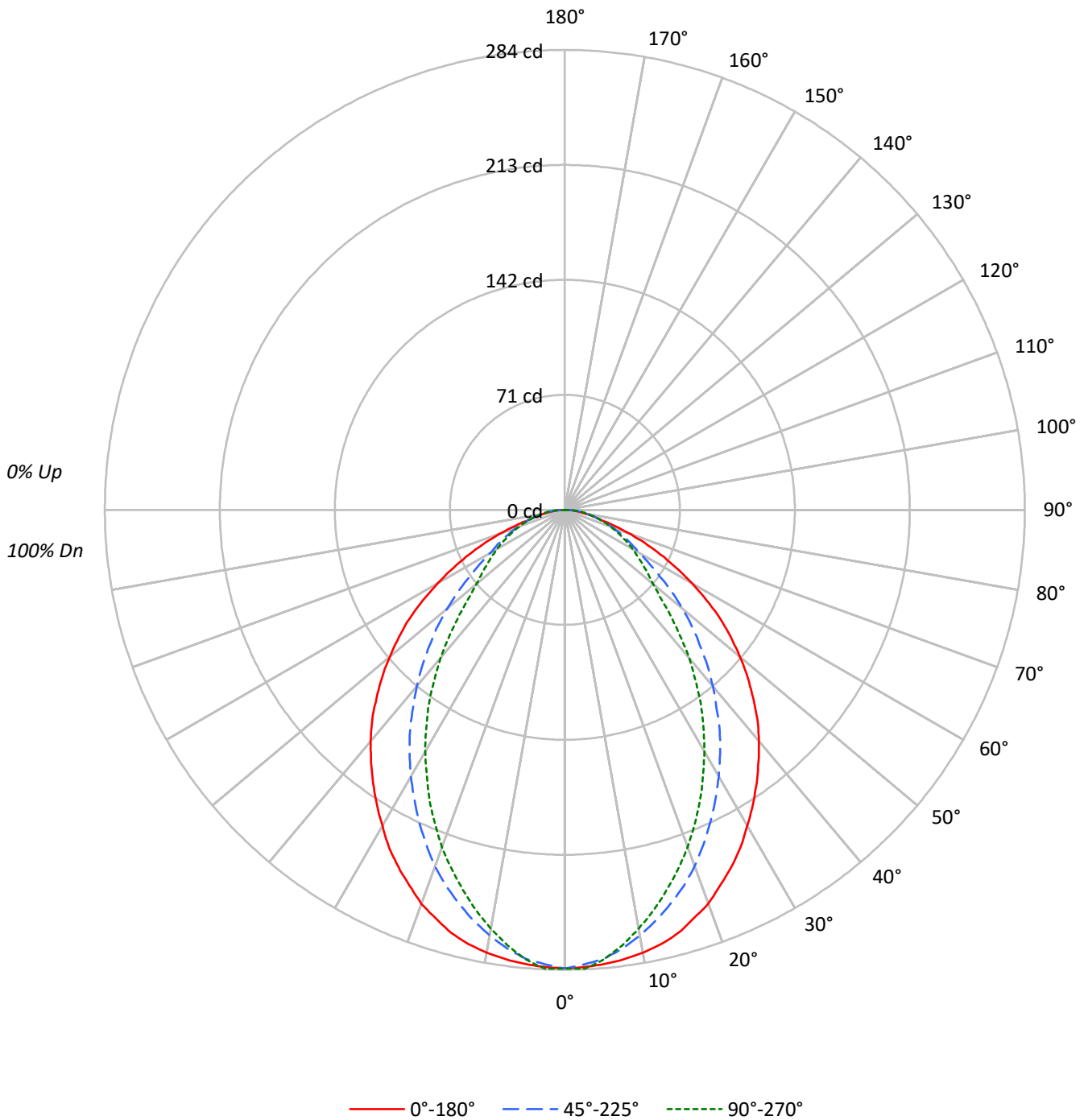
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 546.1 lumens  
Efficiency: N/A  
Efficacy: 46.7 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): 11.7  
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

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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	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	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°	2439	2439	2439
5°	2434	2405	2408
10°	2427	2334	2296
15°	2412	2246	2166
20°	2373	2147	2032
25°	2312	2021	1878
30°	2240	1889	1714
35°	2169	1752	1539
40°	2095	1597	1343
45°	2002	1435	1123
50°	1890	1266	950
55°	1758	1075	880
60°	1559	911	832
65°	1328	842	787
70°	1040	780	745
75°	709	719	719
80°	610	674	694
85°	524	662	721

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2002 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.4	4.8
10°-20°	71.6	13.1
20°-30°	99.4	18.2
30°-40°	106.5	19.5
40°-50°	94.3	17.3
50°-60°	71.1	13.0
60°-70°	46.0	8.4
70°-80°	23.6	4.3
80°-90°	7.2	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°	197.3	36.1
0°-40°	303.8	55.6
0°-60°	469.2	85.9
0°-90°	546.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	546.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	283	283	283	283	283	
5°	282	282	278	279	279	27
15°	271	265	252	246	243	76
25°	243	230	213	201	198	112
35°	206	188	167	152	146	129
45°	164	143	118	100	92	127
55°	117	98	72	60	59	104
65°	65	53	41	39	39	65
75°	21	22	22	22	22	25
85°	5	6	7	7	7	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	283.2	283.2	283.2	283.2	283.2
2.5°	282.6	283.6	280.9	282.9	283.6
5°	281.6	281.9	278.2	278.6	278.6
7.5°	279.9	279.2	273.2	271.6	271.2
10°	277.6	275.6	266.9	263.6	262.6
12.5°	274.6	270.9	259.9	255.3	253.3
15°	270.6	264.6	251.9	245.6	243.0
17.5°	264.6	256.9	243.6	235.6	232.6
20°	258.9	248.6	234.3	224.3	221.7
22.5°	250.9	240.0	223.6	213.0	209.7
25°	243.3	230.3	212.7	201.4	197.7
27.5°	235.0	220.3	201.4	189.4	184.7
30°	225.3	209.7	190.0	177.4	172.4
32.5°	216.0	199.4	178.4	164.4	159.1
35°	206.3	187.7	166.7	151.8	146.4
37.5°	196.4	176.7	153.8	139.1	132.1
40°	186.4	165.7	142.1	125.5	119.5
42.5°	176.1	154.4	130.1	112.8	105.2
45°	164.4	143.1	117.8	99.5	92.2
47.5°	153.1	132.1	106.5	86.5	79.9
50°	141.1	120.5	94.5	75.2	70.9
52.5°	129.1	108.5	82.9	66.6	64.6
55°	117.1	97.5	71.6	60.2	58.6
57.5°	103.8	86.2	61.6	54.6	53.2
60°	90.5	73.9	52.9	49.3	48.3
62.5°	77.5	63.2	46.9	43.9	43.3
65°	65.2	52.6	41.3	38.9	38.6
67.5°	53.2	43.3	35.9	34.6	33.9
70°	41.3	34.6	31.0	30.3	29.6
72.5°	30.6	28.0	26.3	26.0	25.6
75°	21.3	22.3	21.6	21.6	21.6
77.5°	17.0	17.3	17.6	18.0	17.6
80°	12.3	13.3	13.6	14.3	14.0
82.5°	8.7	9.3	10.3	10.6	11.0
85°	5.3	5.7	6.7	7.3	7.3
87.5°	2.3	2.7	3.3	4.0	4.3
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	13.54	15.04	13.90	15.35	15.66	10.10	11.60	10.47	11.91	12.23
	3H	14.74	16.08	15.12	16.41	16.78	11.80	13.14	12.17	13.47	13.83
	4H	15.05	16.31	15.45	16.66	17.04	12.47	13.73	12.87	14.08	14.46
	6H	15.25	16.41	15.66	16.78	17.17	13.02	14.18	13.43	14.55	14.94
	8H	15.31	16.42	15.74	16.81	17.21	13.24	14.35	13.67	14.74	15.14
	12H	15.34	16.40	15.77	16.78	17.21	13.41	14.47	13.84	14.85	15.28
4H	2H	13.68	14.94	14.08	15.29	15.67	10.76	12.02	11.16	12.37	12.75
	3H	15.08	16.13	15.49	16.53	16.93	12.67	13.72	13.08	14.12	14.52
	4H	15.51	16.45	15.94	16.86	17.30	13.47	14.41	13.90	14.83	15.27
	6H	15.83	16.65	16.29	17.09	17.55	14.16	14.98	14.62	15.42	15.88
	8H	15.93	16.69	16.39	17.14	17.61	14.43	15.20	14.90	15.64	16.11
	12H	16.00	16.68	16.48	17.16	17.63	14.66	15.35	15.15	15.82	16.30
8H	4H	15.63	16.40	16.10	16.84	17.31	13.79	14.55	14.25	15.00	15.46
	6H	16.06	16.69	16.55	17.18	17.66	14.62	15.25	15.11	15.74	16.22
	8H	16.21	16.78	16.73	17.29	17.78	14.98	15.55	15.50	16.06	16.55
	12H	16.34	16.84	16.85	17.34	17.90	15.31	15.82	15.82	16.31	16.87
12H	4H	15.64	16.32	16.12	16.80	17.27	13.82	14.50	14.30	14.98	15.45
	6H	16.08	16.65	16.59	17.16	17.65	14.68	15.24	15.19	15.75	16.24
	8H	16.29	16.79	16.80	17.28	17.85	15.11	15.61	15.62	16.10	16.67