

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: P1060829

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060829  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H350D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

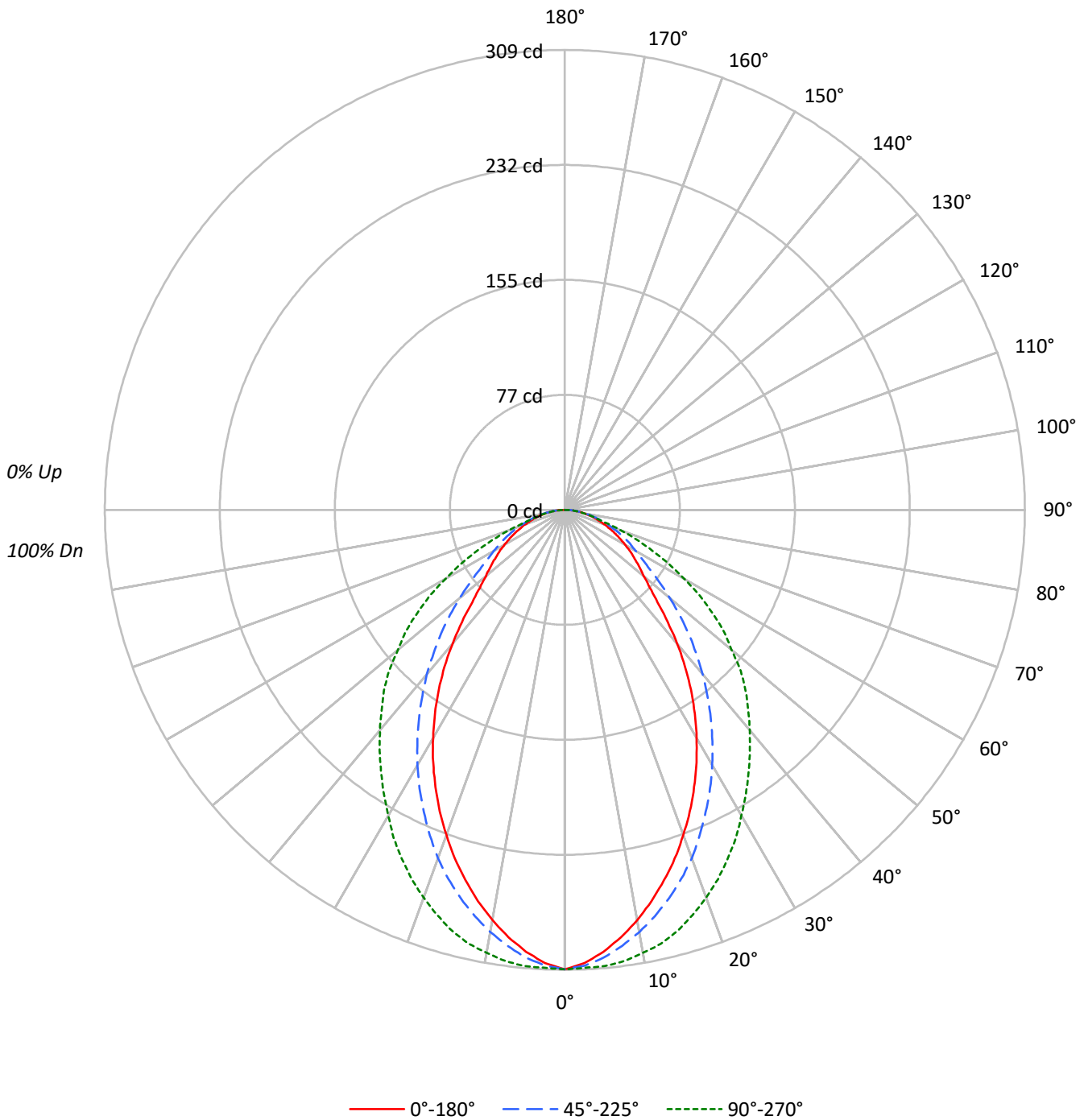
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 562.0 lumens  
Efficiency: N/A  
Efficacy: 48.0 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
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									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	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	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																												

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

	0°	45°	90°
0°	2658	2658	2658
5°	2576	2610	2660
10°	2447	2518	2642
15°	2296	2409	2610
20°	2131	2283	2541
25°	1953	2127	2459
30°	1760	1969	2359
35°	1551	1795	2262
40°	1321	1619	2172
45°	1072	1431	2092
50°	927	1231	1959
55°	860	1045	1817
60°	803	942	1593
65°	752	884	1324
70°	700	816	1002
75°	669	752	722
80°	625	689	610
85°	573	642	484

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2092 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.5	5.1
10°-20°	76.6	13.6
20°-30°	104.6	18.6
30°-40°	109.6	19.5
40°-50°	94.9	16.9
50°-60°	71.3	12.7
60°-70°	46.0	8.2
70°-80°	23.6	4.2
80°-90°	7.0	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°	209.7	37.3
0°-40°	319.3	56.8
0°-60°	485.4	86.4
0°-90°	562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	562.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	309	309	309	309	309	
5°	298	302	302	304	308	28
15°	258	264	270	282	293	72
25°	206	213	224	241	259	94
35°	148	156	171	194	215	92
45°	88	97	118	146	172	69
55°	57	59	70	99	121	51
65°	37	38	43	52	65	37
75°	20	22	23	22	22	21
85°	6	7	6	6	5	7
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	308.7	308.7	308.7	308.7	308.7
2.5°	304.8	308.7	306.4	307.1	308.0
5°	298.0	302.5	301.9	304.1	307.7
7.5°	289.6	294.4	295.4	300.6	305.8
10°	279.9	285.4	288.0	295.7	302.2
12.5°	269.2	275.0	279.6	289.3	298.6
15°	257.5	264.0	270.2	282.5	292.8
17.5°	245.6	252.0	260.1	273.7	285.4
20°	232.6	239.8	249.1	263.4	277.3
22.5°	219.4	226.8	236.8	252.4	268.6
25°	205.5	213.2	223.9	241.4	258.8
27.5°	191.5	199.3	211.3	229.7	248.8
30°	177.0	185.1	198.0	218.1	237.2
32.5°	162.4	171.2	184.4	205.8	226.2
35°	147.5	156.0	170.8	193.5	215.2
37.5°	132.7	141.4	157.2	181.5	204.2
40°	117.5	126.5	144.0	169.5	193.2
42.5°	102.2	112.0	130.4	157.2	182.2
45°	88.0	97.1	117.5	146.2	171.8
47.5°	77.3	83.5	104.5	135.6	160.2
50°	69.2	72.5	91.9	123.9	146.2
52.5°	63.1	65.4	80.2	111.3	134.9
55°	57.3	59.2	69.6	99.3	121.0
57.5°	52.1	53.1	61.5	87.7	107.7
60°	46.6	47.6	54.7	75.1	92.5
62.5°	41.7	42.4	49.2	63.1	78.6
65°	36.9	37.5	43.4	52.4	65.0
67.5°	32.4	33.3	37.9	42.7	51.8
70°	27.8	29.8	32.4	34.6	39.8
72.5°	23.9	25.9	27.2	27.8	28.1
75°	20.1	22.3	22.6	22.3	21.7
77.5°	16.2	18.1	18.1	17.5	16.8
80°	12.6	14.2	13.9	13.3	12.3
82.5°	9.4	10.4	10.0	9.4	8.4
85°	5.8	6.8	6.5	6.1	4.9
87.5°	2.9	3.9	3.6	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	9.83	11.32	10.20	11.63	11.94	13.60	15.09	13.97	15.40	15.71
	3H	11.49	12.82	11.87	13.14	13.51	14.72	16.05	15.09	16.37	16.74
	4H	12.16	13.40	12.56	13.75	14.13	15.01	16.25	15.41	16.60	16.98
	6H	12.67	13.82	13.08	14.19	14.58	15.20	16.35	15.62	16.72	17.11
	8H	12.85	13.95	13.28	14.34	14.74	15.26	16.35	15.68	16.74	17.14
	12H	12.98	14.02	13.41	14.41	14.83	15.28	16.33	15.71	16.71	17.14
4H	2H	10.62	11.86	11.02	12.21	12.59	13.76	15.01	14.16	15.36	15.74
	3H	12.48	13.51	12.89	13.91	14.31	15.07	16.11	15.48	16.51	16.91
	4H	13.28	14.21	13.72	14.63	15.07	15.48	16.41	15.91	16.83	17.27
	6H	13.93	14.74	14.39	15.18	15.64	15.80	16.60	16.26	17.05	17.51
	8H	14.16	14.91	14.62	15.36	15.83	15.89	16.64	16.35	17.09	17.56
	12H	14.33	15.00	14.81	15.48	15.95	15.95	16.63	16.43	17.10	17.58
8H	4H	13.63	14.39	14.10	14.83	15.30	15.61	16.37	16.08	16.81	17.28
	6H	14.42	15.05	14.92	15.54	16.02	16.03	16.65	16.52	17.14	17.62
	8H	14.75	15.31	15.26	15.82	16.30	16.18	16.74	16.69	17.25	17.74
	12H	15.01	15.51	15.52	16.00	16.56	16.30	16.80	16.81	17.29	17.85
12H	4H	13.66	14.34	14.15	14.81	15.29	15.62	16.29	16.10	16.77	17.24
	6H	14.49	15.05	15.00	15.56	16.05	16.05	16.61	16.56	17.12	17.61
	8H	14.87	15.37	15.38	15.86	16.43	16.25	16.74	16.76	17.24	17.80