

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: P1060425

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060425  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
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-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

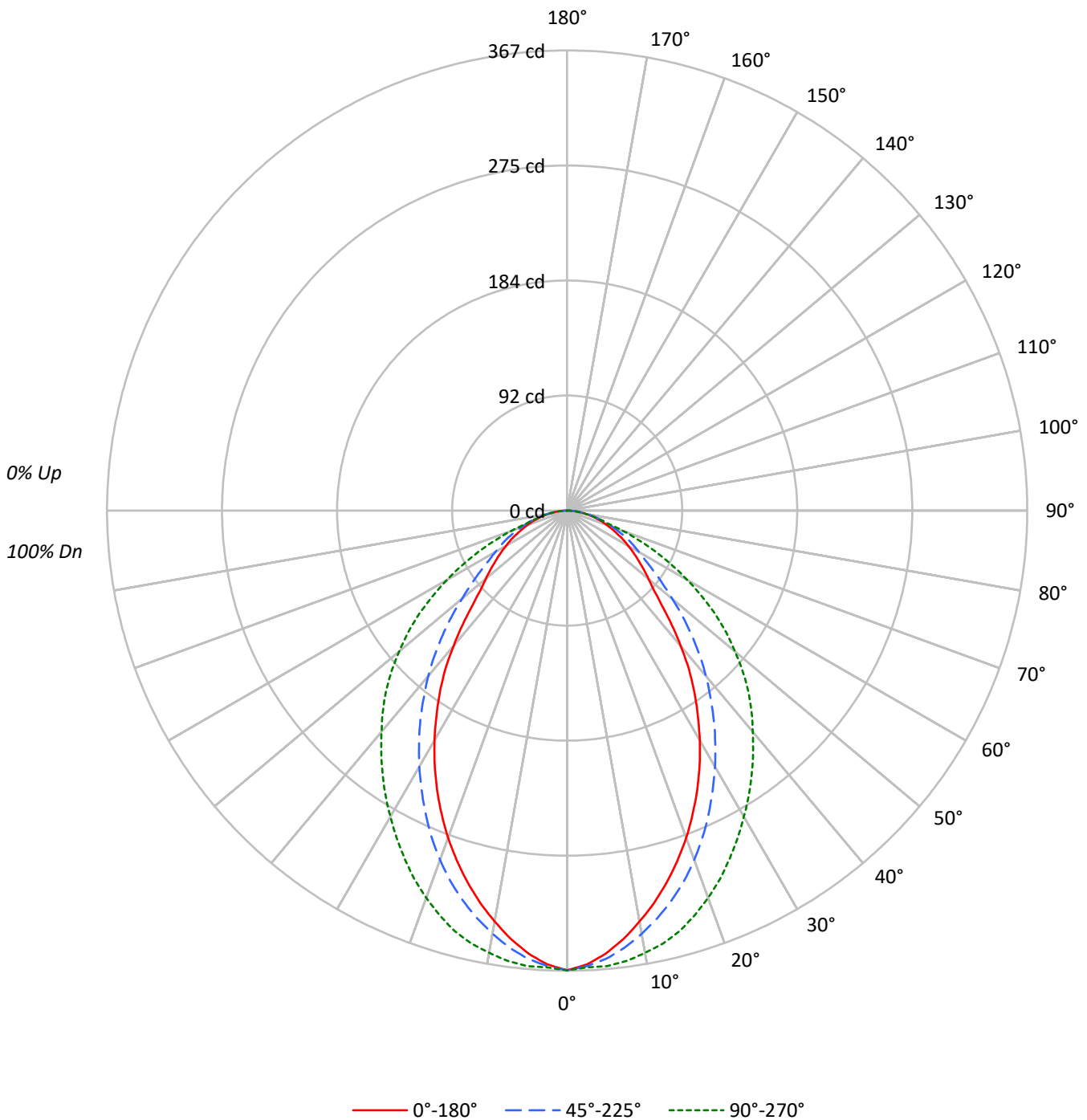
Lumens per Lamp: N/A  
Luminaire Lumens: 672.6 lumens  
Efficiency: N/A  
Efficacy: 53.8 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

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

	0°	45°	90°
0°	3157	3157	3157
5°	3065	3101	3152
10°	2910	2996	3131
15°	2736	2869	3094
20°	2545	2717	3011
25°	2334	2537	2912
30°	2103	2345	2803
35°	1862	2144	2697
40°	1583	1937	2589
45°	1296	1711	2489
50°	1135	1468	2342
55°	1042	1266	2168
60°	966	1140	1910
65°	905	1072	1599
70°	848	979	1201
75°	799	895	875
80°	739	818	739
85°	672	800	642

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2489 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.9	5.0
10°-20°	91.1	13.6
20°-30°	124.6	18.5
30°-40°	130.9	19.5
40°-50°	113.6	16.9
50°-60°	85.7	12.7
60°-70°	55.6	8.3
70°-80°	28.5	4.2
80°-90°	8.6	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°	249.6	37.1
0°-40°	380.5	56.6
0°-60°	579.9	86.2
0°-90°	672.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	672.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	367	367	367	367	367	
5°	355	359	359	362	365	33
15°	307	314	322	336	347	86
25°	246	254	267	287	306	113
35°	177	187	204	231	257	110
45°	106	116	140	176	204	84
55°	69	71	84	120	144	62
65°	44	45	53	64	78	44
75°	24	27	27	27	26	26
85°	7	8	8	8	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	366.6	366.6	366.6	366.6	366.6
2.5°	362.3	366.9	363.6	364.3	364.6
5°	354.6	359.4	358.8	361.7	364.6
7.5°	344.5	350.3	351.6	357.5	362.3
10°	332.8	339.3	342.6	352.0	358.1
12.5°	320.5	327.0	332.8	344.8	353.6
15°	306.9	314.3	321.8	336.4	347.1
17.5°	292.6	300.4	309.8	325.7	338.3
20°	277.7	285.5	296.5	313.7	328.6
22.5°	261.8	270.5	282.2	300.7	318.2
25°	245.6	254.3	267.0	287.4	306.5
27.5°	228.7	237.8	251.4	274.1	294.5
30°	211.5	221.2	235.8	259.8	281.9
32.5°	194.0	204.4	219.9	245.6	269.6
35°	177.1	186.8	204.0	231.3	256.6
37.5°	159.6	169.3	187.8	217.3	243.6
40°	140.8	151.5	172.3	202.7	230.3
42.5°	123.3	134.0	156.4	188.8	217.7
45°	106.4	116.5	140.5	175.5	204.4
47.5°	93.4	100.6	124.6	162.5	190.1
50°	84.7	87.9	109.6	148.2	174.8
52.5°	76.9	79.5	96.0	134.0	159.9
55°	69.4	71.4	84.3	119.7	144.4
57.5°	62.9	63.9	74.0	105.4	127.5
60°	56.1	57.4	66.2	90.8	110.9
62.5°	50.6	51.3	59.4	76.9	94.4
65°	44.4	45.4	52.6	63.6	78.5
67.5°	38.9	40.5	45.4	51.9	62.0
70°	33.7	36.0	38.9	42.2	47.7
72.5°	28.9	31.5	33.1	34.4	33.4
75°	24.0	26.9	26.9	27.2	26.3
77.5°	19.5	22.1	21.7	21.4	20.1
80°	14.9	17.2	16.5	16.2	14.9
82.5°	11.0	12.7	12.0	11.7	10.1
85°	6.8	8.4	8.1	7.8	6.5
87.5°	3.2	4.9	4.5	4.2	2.9
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	10.50	11.98	10.86	12.30	12.61	14.23	15.72	14.60	16.03	16.35
	3H	12.16	13.49	12.54	13.82	14.18	15.36	16.69	15.74	17.02	17.38
	4H	12.83	14.08	13.23	14.43	14.81	15.66	16.91	16.06	17.25	17.63
	6H	13.34	14.49	13.75	14.86	15.25	15.86	17.01	16.27	17.38	17.77
	8H	13.51	14.61	13.94	15.00	15.40	15.91	17.01	16.34	17.40	17.80
	12H	13.63	14.68	14.06	15.06	15.49	15.94	16.99	16.38	17.38	17.81
4H	2H	11.29	12.54	11.69	12.89	13.27	14.40	15.65	14.80	16.00	16.38
	3H	13.16	14.19	13.57	14.60	15.00	15.73	16.77	16.14	17.17	17.57
	4H	13.96	14.90	14.40	15.31	15.75	16.15	17.08	16.58	17.50	17.93
	6H	14.61	15.42	15.07	15.86	16.32	16.47	17.28	16.93	17.72	18.18
	8H	14.83	15.59	15.30	16.03	16.50	16.56	17.32	17.03	17.76	18.23
	12H	15.00	15.67	15.48	16.15	16.62	16.64	17.31	17.12	17.79	18.26
8H	4H	14.31	15.07	14.78	15.51	15.98	16.28	17.04	16.74	17.48	17.95
	6H	15.10	15.73	15.60	16.22	16.70	16.70	17.32	17.20	17.82	18.29
	8H	15.42	15.98	15.94	16.49	16.98	16.86	17.42	17.37	17.93	18.42
	12H	15.68	16.18	16.19	16.67	17.24	17.00	17.49	17.51	17.98	18.55
12H	4H	14.34	15.02	14.82	15.50	15.97	16.28	16.96	16.77	17.44	17.91
	6H	15.16	15.73	15.68	16.24	16.72	16.72	17.28	17.23	17.79	18.28
	8H	15.55	16.05	16.06	16.54	17.10	16.93	17.43	17.44	17.92	18.48