

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: P1060389

Luminaire Tested: S124RDRP-S350D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060389  
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-S350D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

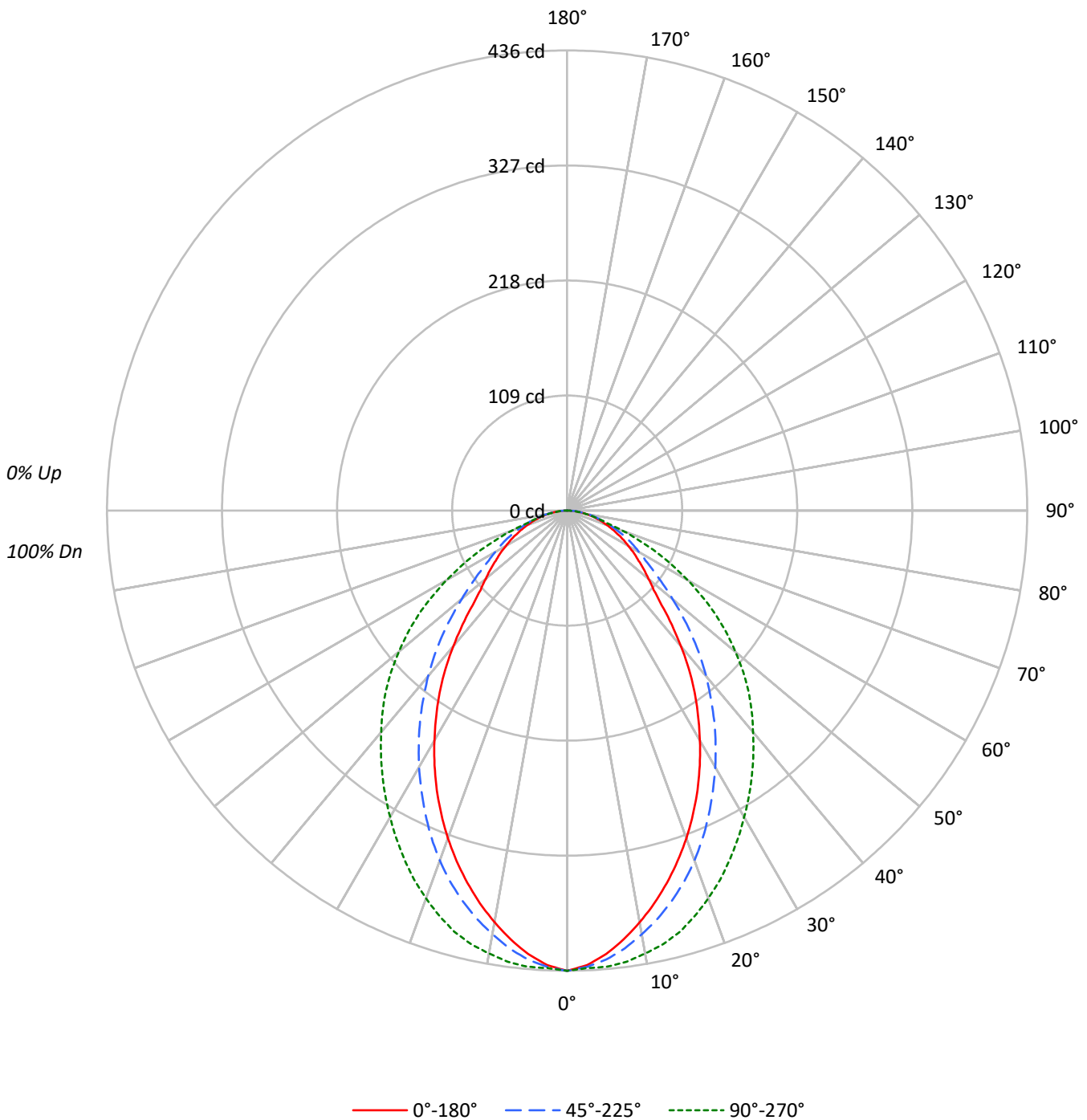
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 800.3 lumens  
Efficiency: N/A  
Efficacy: 64.0 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 (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	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°	3755	3755	3755
5°	3647	3690	3750
10°	3463	3564	3726
15°	3255	3414	3682
20°	3028	3233	3583
25°	2776	3018	3465
30°	2502	2790	3335
35°	2215	2552	3209
40°	1883	2303	3080
45°	1542	2035	2962
50°	1349	1748	2786
55°	1240	1507	2579
60°	1150	1355	2273
65°	1078	1273	1903
70°	1010	1166	1428
75°	952	1065	1041
80°	883	977	883
85°	800	948	761

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2962 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	5.0
10°-20°	108.4	13.6
20°-30°	148.2	18.5
30°-40°	155.8	19.5
40°-50°	135.2	16.9
50°-60°	102.0	12.7
60°-70°	66.1	8.3
70°-80°	33.9	4.2
80°-90°	10.3	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°	297.0	37.1
0°-40°	452.8	56.6
0°-60°	690.0	86.2
0°-90°	800.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	800.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	436	436	436	436	436	
5°	422	428	427	430	434	39
15°	365	374	383	400	413	102
25°	292	303	318	342	365	134
35°	211	222	243	275	305	131
45°	127	139	167	209	243	100
55°	83	85	100	142	172	74
65°	53	54	62	76	93	53
75°	29	32	32	32	31	30
85°	8	10	10	9	8	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	436.1	436.1	436.1	436.1	436.1
2.5°	431.1	436.5	432.7	433.4	433.8
5°	421.9	427.6	426.9	430.3	433.8
7.5°	409.9	416.8	418.4	425.3	431.1
10°	396.0	403.7	407.6	418.8	426.1
12.5°	381.3	389.0	396.0	410.3	420.7
15°	365.1	374.0	382.9	400.2	413.0
17.5°	348.1	357.4	368.6	387.5	402.6
20°	330.4	339.6	352.8	373.2	391.0
22.5°	311.5	321.9	335.8	357.8	378.6
25°	292.2	302.6	317.6	342.0	364.7
27.5°	272.1	282.9	299.1	326.1	350.5
30°	251.6	263.2	280.6	309.2	335.4
32.5°	230.8	243.2	261.7	292.2	320.7
35°	210.7	222.3	242.8	275.2	305.3
37.5°	189.9	201.5	223.5	258.6	289.9
40°	167.5	180.2	204.9	241.2	274.0
42.5°	146.7	159.4	186.0	224.6	259.0
45°	126.6	138.6	167.1	208.8	243.2
47.5°	111.2	119.6	148.2	193.4	226.2
50°	100.7	104.6	130.5	176.4	208.0
52.5°	91.5	94.6	114.2	159.4	190.3
55°	82.6	84.9	100.4	142.4	171.8
57.5°	74.9	76.0	88.0	125.4	151.7
60°	66.8	68.3	78.7	108.1	132.0
62.5°	60.2	61.0	70.6	91.5	112.3
65°	52.9	54.0	62.5	75.6	93.4
67.5°	46.3	48.2	54.0	61.8	73.7
70°	40.1	42.8	46.3	50.2	56.7
72.5°	34.4	37.4	39.4	40.9	39.8
75°	28.6	32.0	32.0	32.4	31.3
77.5°	23.2	26.2	25.9	25.5	23.9
80°	17.8	20.5	19.7	19.3	17.8
82.5°	13.1	15.1	14.3	13.9	12.0
85°	8.1	10.0	9.6	9.3	7.7
87.5°	3.9	5.8	5.4	5.0	3.5
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	11.10	12.58	11.46	12.90	13.21	14.84	16.32	15.20	16.64	16.95
	3H	12.76	14.10	13.14	14.42	14.79	15.96	17.30	16.34	17.62	17.99
	4H	13.43	14.68	13.83	15.03	15.41	16.26	17.51	16.66	17.86	18.24
	6H	13.94	15.09	14.35	15.46	15.85	16.46	17.61	16.87	17.98	18.37
	8H	14.12	15.21	14.54	15.60	16.01	16.52	17.61	16.94	18.00	18.40
	12H	14.24	15.29	14.67	15.67	16.10	16.55	17.60	16.98	17.98	18.41
4H	2H	11.89	13.14	12.29	13.49	13.87	15.00	16.25	15.40	16.60	16.98
	3H	13.76	14.80	14.17	15.20	15.60	16.33	17.37	16.74	17.77	18.17
	4H	14.57	15.50	15.00	15.91	16.35	16.75	17.68	17.18	18.10	18.54
	6H	15.21	16.02	15.67	16.46	16.92	17.07	17.88	17.53	18.33	18.79
	8H	15.43	16.19	15.90	16.64	17.10	17.17	17.92	17.63	18.37	18.84
	12H	15.60	16.27	16.08	16.75	17.23	17.24	17.91	17.72	18.39	18.87
8H	4H	14.91	15.67	15.38	16.12	16.58	16.88	17.64	17.35	18.09	18.55
	6H	15.71	16.33	16.20	16.82	17.30	17.30	17.93	17.80	18.42	18.90
	8H	16.03	16.59	16.54	17.10	17.59	17.46	18.02	17.98	18.53	19.02
	12H	16.29	16.78	16.80	17.28	17.84	17.60	18.10	18.11	18.59	19.16
12H	4H	14.94	15.62	15.43	16.10	16.57	16.89	17.56	17.37	18.04	18.51
	6H	15.77	16.33	16.28	16.84	17.33	17.33	17.89	17.84	18.40	18.89
	8H	16.15	16.65	16.66	17.14	17.71	17.53	18.03	18.05	18.52	19.09