

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: P1060416

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060416
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-S350D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

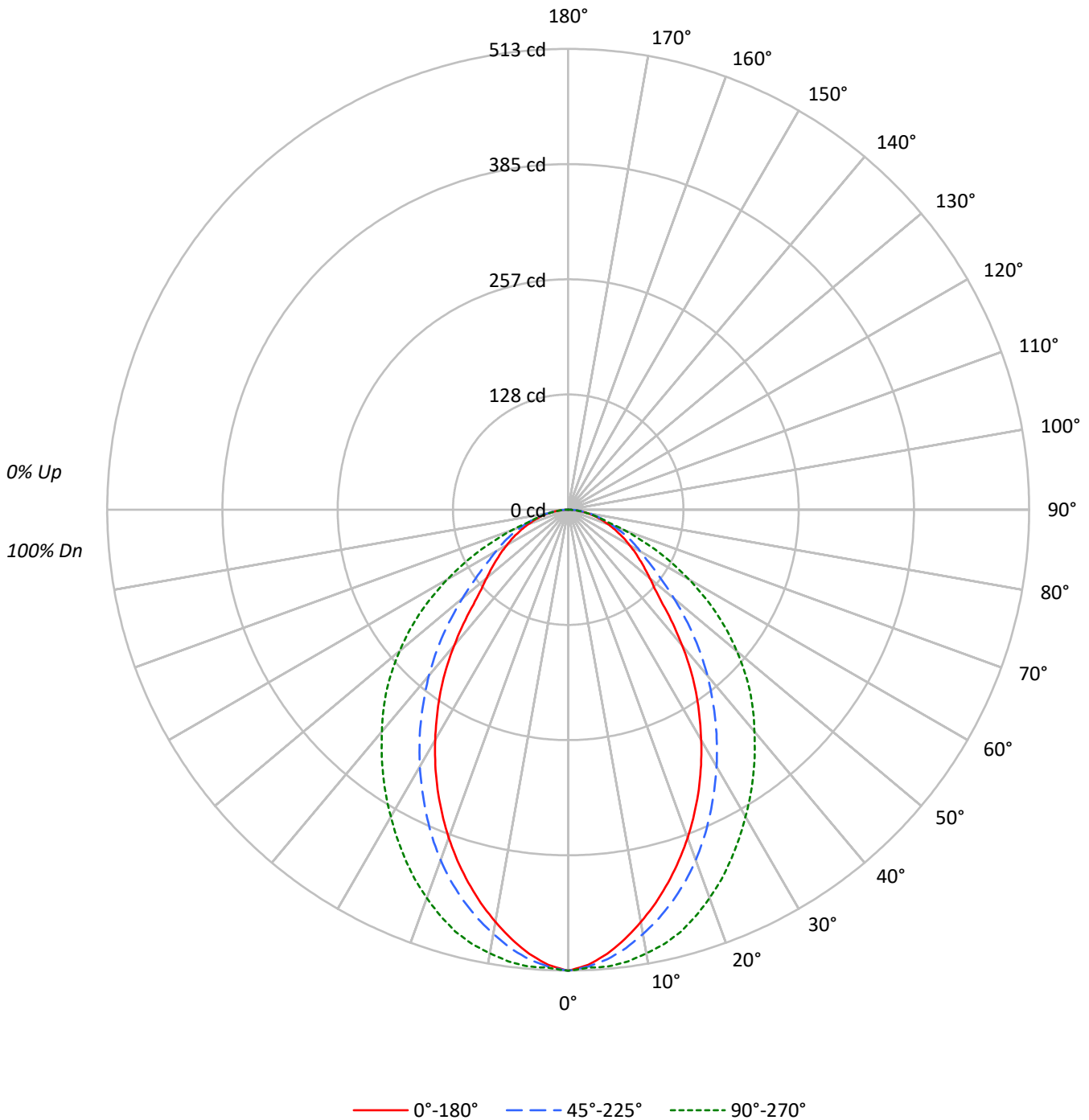
Lumens per Lamp: N/A
Luminaire Lumens: 941.6 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	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	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°	4419	4419	4419
5°	4291	4342	4412
10°	4074	4194	4384
15°	3830	4016	4332
20°	3562	3804	4215
25°	3267	3551	4077
30°	2944	3282	3924
35°	2607	3002	3776
40°	2216	2710	3624
45°	1815	2394	3484
50°	1587	2056	3279
55°	1459	1773	3034
60°	1354	1595	2675
65°	1267	1500	2239
70°	1188	1372	1682
75°	1118	1254	1224
80°	1036	1150	1036
85°	939	1126	899

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3484 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	5.0
10°-20°	127.6	13.6
20°-30°	174.4	18.5
30°-40°	183.3	19.5
40°-50°	159.1	16.9
50°-60°	120.0	12.7
60°-70°	77.8	8.3
70°-80°	39.9	4.2
80°-90°	12.1	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°	349.4	37.1
0°-40°	532.7	56.6
0°-60°	811.8	86.2
0°-90°	941.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	941.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	496	503	502	506	510	46
15°	430	440	450	471	486	120
25°	344	356	374	402	429	158
35°	248	262	286	324	359	154
45°	149	163	197	246	286	117
55°	97	100	118	168	202	87
65°	62	64	74	89	110	62
75°	34	38	38	38	37	36
85°	10	12	11	11	9	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	513.2	513.2	513.2	513.2	513.2
2.5°	507.3	513.6	509.1	510.0	510.4
5°	496.4	503.2	502.3	506.3	510.4
7.5°	482.3	490.5	492.3	500.4	507.3
10°	465.9	475.0	479.6	492.7	501.4
12.5°	448.7	457.8	465.9	482.7	495.0
15°	429.6	440.0	450.5	470.9	485.9
17.5°	409.6	420.5	433.7	455.9	473.7
20°	388.7	399.6	415.1	439.1	460.0
22.5°	366.5	378.7	395.1	421.0	445.5
25°	343.8	356.0	373.7	402.4	429.1
27.5°	320.2	332.9	351.9	383.7	412.3
30°	296.1	309.7	330.1	363.8	394.6
32.5°	271.6	286.1	307.9	343.8	377.4
35°	248.0	261.6	285.6	323.8	359.2
37.5°	223.4	237.1	262.9	304.3	341.0
40°	197.1	212.1	241.1	283.8	322.4
42.5°	172.6	187.6	218.9	264.3	304.7
45°	149.0	163.0	196.6	245.7	286.1
47.5°	130.8	140.8	174.4	227.5	266.1
50°	118.5	123.1	153.5	207.5	244.8
52.5°	107.6	111.3	134.4	187.6	223.9
55°	97.2	99.9	118.1	167.6	202.1
57.5°	88.1	89.5	103.5	147.6	178.5
60°	78.6	80.4	92.6	127.2	155.3
62.5°	70.8	71.8	83.1	107.6	132.2
65°	62.2	63.6	73.6	89.0	109.9
67.5°	54.5	56.8	63.6	72.7	86.7
70°	47.2	50.4	54.5	59.0	66.8
72.5°	40.4	44.1	46.3	48.1	46.8
75°	33.6	37.7	37.7	38.1	36.8
77.5°	27.2	30.9	30.4	30.0	28.2
80°	20.9	24.1	23.2	22.7	20.9
82.5°	15.4	17.7	16.8	16.3	14.1
85°	9.5	11.8	11.4	10.9	9.1
87.5°	4.5	6.8	6.4	5.9	4.1
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	11.67	13.15	12.03	13.47	13.78	15.40	16.89	15.77	17.20	17.52
	3H	13.33	14.67	13.71	14.99	15.36	16.53	17.86	16.91	18.19	18.55
	4H	14.00	15.25	14.40	15.60	15.98	16.83	18.07	17.23	18.42	18.80
	6H	14.51	15.66	14.92	16.03	16.42	17.03	18.18	17.44	18.55	18.94
	8H	14.68	15.78	15.11	16.17	16.57	17.08	18.18	17.51	18.57	18.97
	12H	14.80	15.85	15.23	16.23	16.66	17.11	18.16	17.54	18.55	18.98
4H	2H	12.46	13.71	12.86	14.06	14.44	15.57	16.82	15.97	17.17	17.55
	3H	14.33	15.37	14.74	15.77	16.17	16.90	17.94	17.31	18.34	18.74
	4H	15.14	16.07	15.57	16.48	16.92	17.32	18.25	17.75	18.66	19.10
	6H	15.78	16.59	16.24	17.03	17.49	17.64	18.45	18.10	18.89	19.35
	8H	16.00	16.76	16.46	17.20	17.67	17.73	18.49	18.20	18.93	19.40
	12H	16.16	16.84	16.65	17.32	17.79	17.80	18.48	18.29	18.96	19.43
8H	4H	15.48	16.24	15.95	16.68	17.15	17.45	18.21	17.91	18.65	19.12
	6H	16.27	16.90	16.77	17.39	17.87	17.87	18.49	18.37	18.99	19.46
	8H	16.59	17.15	17.11	17.66	18.15	18.03	18.59	18.54	19.10	19.59
	12H	16.85	17.35	17.36	17.84	18.41	18.16	18.66	18.68	19.15	19.72
12H	4H	15.51	16.19	16.00	16.67	17.14	17.45	18.13	17.94	18.61	19.08
	6H	16.33	16.90	16.85	17.41	17.90	17.89	18.45	18.41	18.96	19.45
	8H	16.72	17.22	17.23	17.71	18.27	18.10	18.60	18.61	19.09	19.65