

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: P1060451

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060451
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: S124RDRP-S350D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

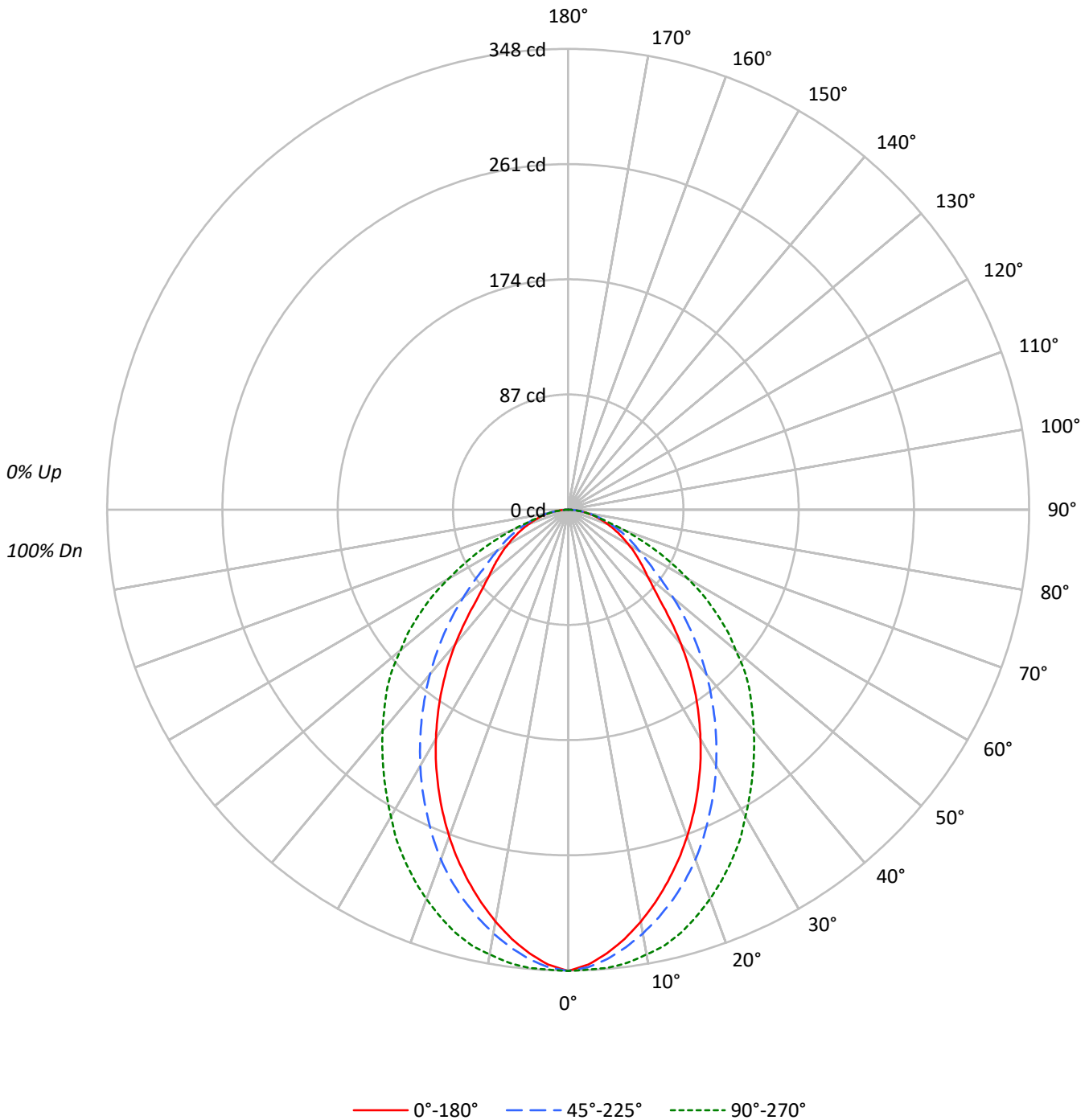
Lumens per Lamp: N/A
Luminaire Lumens: 634.1 lumens
Efficiency: N/A
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 0.92 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	2999	2999	2999
5°	2907	2944	3001
10°	2761	2841	2982
15°	2591	2718	2945
20°	2405	2576	2867
25°	2202	2400	2775
30°	1986	2221	2661
35°	1750	2027	2552
40°	1489	1827	2451
45°	1209	1614	2361
50°	1046	1389	2210
55°	970	1179	2049
60°	906	1063	1798
65°	848	996	1496
70°	791	919	1130
75°	752	852	815
80°	704	779	689
85°	652	721	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2361 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.2	5.1
10°-20°	86.4	13.6
20°-30°	118.0	18.6
30°-40°	123.6	19.5
40°-50°	107.0	16.9
50°-60°	80.4	12.7
60°-70°	51.9	8.2
70°-80°	26.6	4.2
80°-90°	8.0	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°	236.6	37.3
0°-40°	360.3	56.8
0°-60°	547.7	86.4
0°-90°	634.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	634.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	336	341	341	343	347	31
15°	291	298	305	319	330	81
25°	232	241	253	272	292	106
35°	166	176	193	218	243	104
45°	99	110	132	165	194	78
55°	65	67	78	112	136	58
65°	42	42	49	59	73	41
75°	23	25	26	25	24	24
85°	7	8	7	7	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	348.3	348.3	348.3	348.3	348.3
2.5°	343.9	348.3	345.8	346.5	347.6
5°	336.3	341.4	340.6	343.2	347.2
7.5°	326.8	332.2	333.3	339.2	345.0
10°	315.8	322.0	324.9	333.7	341.0
12.5°	303.8	310.3	315.4	326.4	337.0
15°	290.6	297.9	304.9	318.7	330.4
17.5°	277.1	284.4	293.5	308.9	322.0
20°	262.5	270.5	281.1	297.2	312.9
22.5°	247.5	255.9	267.3	284.8	303.0
25°	231.8	240.6	252.6	272.4	292.1
27.5°	216.1	224.9	238.4	259.2	280.8
30°	199.7	208.8	223.4	246.1	267.6
32.5°	183.3	193.1	208.1	232.2	255.2
35°	166.5	176.0	192.8	218.3	242.8
37.5°	149.7	159.5	177.4	204.8	230.4
40°	132.5	142.8	162.5	191.3	218.0
42.5°	115.4	126.3	147.1	177.4	205.6
45°	99.3	109.5	132.5	165.0	193.9
47.5°	87.3	94.2	117.9	153.0	180.7
50°	78.1	81.8	103.7	139.8	165.0
52.5°	71.2	73.8	90.5	125.6	152.2
55°	64.6	66.8	78.5	112.1	136.5
57.5°	58.8	59.9	69.4	98.9	121.6
60°	52.6	53.7	61.7	84.7	104.4
62.5°	47.1	47.8	55.5	71.2	88.7
65°	41.6	42.4	48.9	59.1	73.4
67.5°	36.5	37.6	42.7	48.2	58.4
70°	31.4	33.6	36.5	39.1	44.9
72.5°	27.0	29.2	30.7	31.4	31.8
75°	22.6	25.2	25.6	25.2	24.5
77.5°	18.3	20.4	20.4	19.7	19.0
80°	14.2	16.1	15.7	15.0	13.9
82.5°	10.6	11.7	11.3	10.6	9.5
85°	6.6	7.7	7.3	6.9	5.5
87.5°	3.3	4.4	4.0	3.7	2.2
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	10.25	11.73	10.62	12.05	12.36	14.02	15.50	14.39	15.82	16.13
	3H	11.91	13.23	12.28	13.56	13.92	15.13	16.46	15.51	16.79	17.15
	4H	12.57	13.82	12.97	14.17	14.55	15.43	16.67	15.83	17.02	17.40
	6H	13.09	14.24	13.50	14.60	15.00	15.62	16.77	16.04	17.14	17.53
	8H	13.27	14.36	13.70	14.75	15.15	15.68	16.77	16.10	17.16	17.56
	12H	13.40	14.44	13.83	14.82	15.25	15.70	16.75	16.13	17.13	17.56
4H	2H	11.03	12.28	11.43	12.63	13.01	14.18	15.42	14.58	15.77	16.15
	3H	12.89	13.93	13.30	14.33	14.73	15.49	16.52	15.90	16.93	17.33
	4H	13.70	14.63	14.13	15.05	15.49	15.90	16.83	16.33	17.25	17.69
	6H	14.35	15.16	14.81	15.60	16.06	16.22	17.02	16.68	17.47	17.93
	8H	14.58	15.33	15.04	15.78	16.24	16.31	17.06	16.77	17.51	17.98
	12H	14.75	15.42	15.23	15.90	16.37	16.37	17.04	16.85	17.52	18.00
8H	4H	14.05	14.81	14.52	15.25	15.72	16.03	16.79	16.50	17.23	17.70
	6H	14.84	15.47	15.34	15.96	16.44	16.45	17.07	16.94	17.56	18.04
	8H	15.17	15.72	15.68	16.24	16.72	16.60	17.16	17.11	17.67	18.16
	12H	15.43	15.93	15.94	16.42	16.98	16.72	17.22	17.23	17.71	18.27
12H	4H	14.08	14.75	14.56	15.23	15.70	16.04	16.71	16.52	17.19	17.66
	6H	14.91	15.47	15.42	15.98	16.47	16.47	17.03	16.98	17.54	18.03
	8H	15.29	15.79	15.80	16.28	16.85	16.67	17.16	17.18	17.66	18.22