

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: P1060449

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060449
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

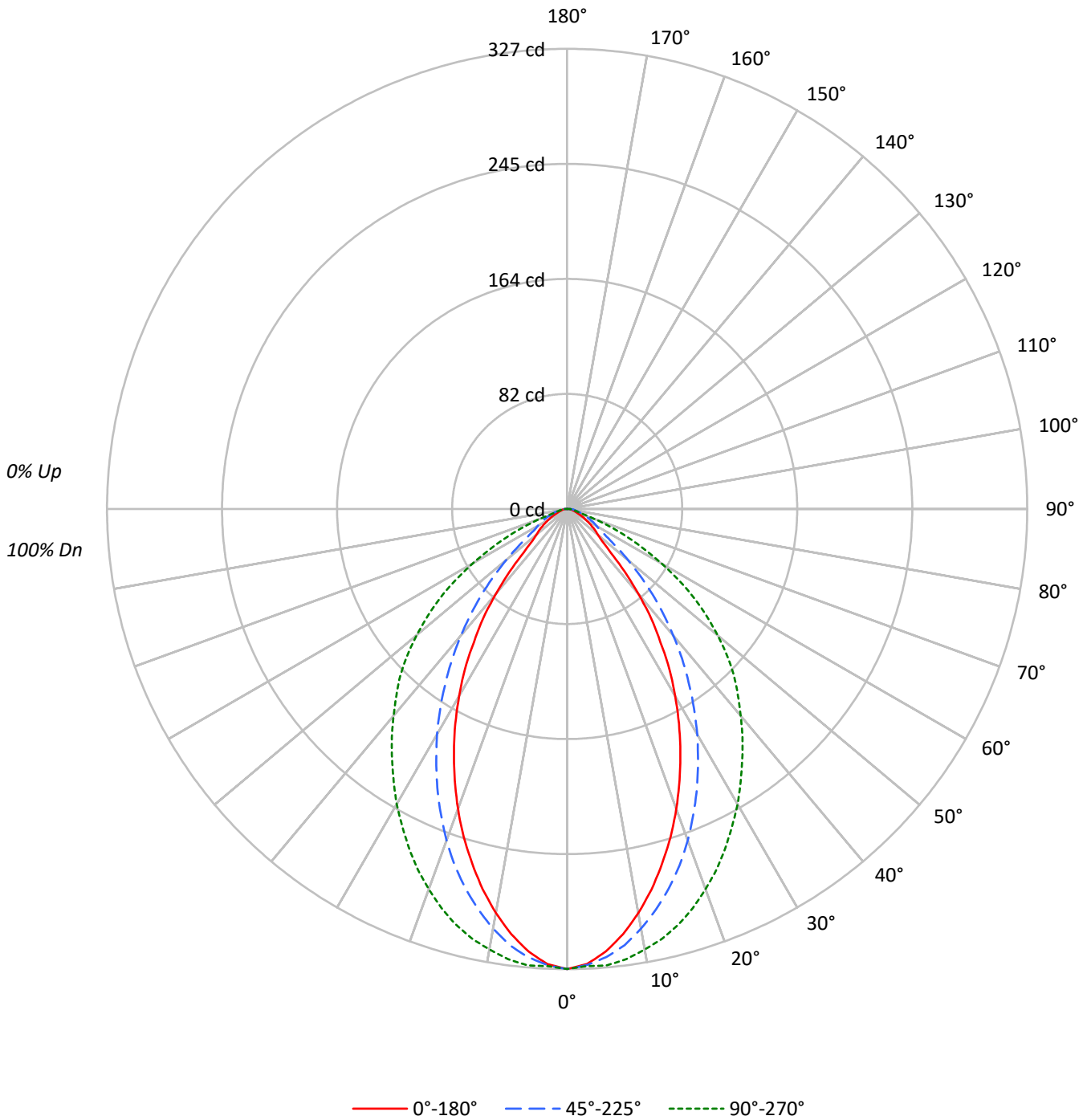
Lumens per Lamp: N/A
Luminaire Lumens: 462.7 lumens
Efficiency: N/A
Efficacy: 37.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2815	2815	2815
5°	2728	2763	2814
10°	2549	2648	2779
15°	2325	2488	2725
20°	2078	2296	2635
25°	1808	2075	2526
30°	1525	1838	2408
35°	1213	1582	2281
40°	882	1319	2156
45°	533	1041	2042
50°	382	754	1869
55°	324	510	1651
60°	264	415	1333
65°	208	373	960
70°	174	312	506
75°	156	293	256
80°	164	288	253
85°	217	435	287

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2042 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	6.5
10°-20°	78.9	17.0
20°-30°	102.3	22.1
30°-40°	98.5	21.3
40°-50°	73.3	15.8
50°-60°	45.0	9.7
60°-70°	22.1	4.8
70°-80°	8.6	1.9
80°-90°	3.9	0.8
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°	211.3	45.7
0°-40°	309.7	66.9
0°-60°	428.0	92.5
0°-90°	462.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	462.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	327	327	327	327	327	
5°	316	320	320	323	326	29
15°	261	269	279	296	306	73
25°	190	200	218	246	266	87
35°	115	126	150	188	217	72
45°	44	54	86	132	168	36
55°	22	22	34	77	110	19
65°	10	11	18	29	47	10
75°	5	8	9	8	8	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	326.9	326.9	326.9	326.9	326.9
2.5°	323.6	327.3	324.4	324.7	325.1
5°	315.6	320.4	319.6	322.6	325.5
7.5°	304.7	310.1	312.7	318.5	322.6
10°	291.5	297.7	302.8	312.3	317.8
12.5°	276.9	284.2	291.5	304.3	312.7
15°	260.8	269.2	279.1	295.9	305.7
17.5°	244.4	252.8	265.6	284.9	297.3
20°	226.8	236.0	250.6	272.1	287.5
22.5°	208.6	218.4	234.5	259.0	277.3
25°	190.3	200.5	218.4	245.8	265.9
27.5°	172.1	181.9	201.3	232.0	253.9
30°	153.4	163.6	184.8	217.0	242.2
32.5°	135.5	145.0	167.7	202.7	229.4
35°	115.4	126.4	150.5	188.1	217.0
37.5°	98.3	108.1	134.1	173.5	204.6
40°	78.5	89.5	117.3	159.3	191.8
42.5°	60.3	71.2	101.2	145.0	179.7
45°	43.8	54.4	85.5	131.9	167.7
47.5°	33.2	39.5	70.1	119.1	154.2
50°	28.5	30.3	56.3	105.2	139.5
52.5°	25.2	25.9	43.8	91.3	124.9
55°	21.6	22.3	34.0	77.4	110.0
57.5°	18.3	18.6	27.4	64.3	93.9
60°	15.3	15.7	24.1	51.5	77.4
62.5°	12.8	13.2	21.6	39.8	61.7
65°	10.2	11.0	18.3	29.2	47.1
67.5°	8.4	9.9	15.3	20.5	32.9
70°	6.9	9.5	12.4	14.2	20.1
72.5°	5.8	8.8	10.6	10.2	9.9
75°	4.7	8.4	8.8	8.0	7.7
77.5°	4.0	7.3	7.3	6.6	6.2
80°	3.3	5.8	5.8	5.8	5.1
82.5°	2.9	4.7	5.1	5.1	4.0
85°	2.2	4.0	4.4	4.4	2.9
87.5°	1.5	3.7	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	3.37	4.72	3.74	5.03	5.34	12.55	13.89	12.91	14.20	14.52
	3H	4.49	5.68	4.87	6.01	6.37	13.06	14.25	13.44	14.58	14.94
	4H	5.00	6.11	5.40	6.46	6.84	13.08	14.19	13.48	14.54	14.92
	6H	5.43	6.45	5.85	6.82	7.22	13.09	14.11	13.50	14.48	14.87
	8H	5.62	6.59	6.05	6.98	7.39	13.09	14.06	13.52	14.45	14.85
	12H	5.80	6.73	6.24	7.11	7.54	13.09	14.02	13.53	14.40	14.83
4H	2H	4.53	5.64	4.93	5.99	6.37	12.44	13.55	12.84	13.90	14.29
	3H	5.87	6.78	6.28	7.18	7.58	13.03	13.94	13.44	14.34	14.75
	4H	6.60	7.41	7.03	7.83	8.27	13.09	13.90	13.52	14.32	14.76
	6H	7.21	7.91	7.67	8.35	8.82	13.16	13.87	13.63	14.31	14.78
	8H	7.44	8.10	7.91	8.55	9.02	13.19	13.85	13.66	14.30	14.77
	12H	7.68	8.26	8.17	8.74	9.22	13.23	13.82	13.72	14.30	14.77
8H	4H	7.07	7.72	7.54	8.17	8.64	13.05	13.70	13.52	14.15	14.62
	6H	7.91	8.45	8.41	8.94	9.42	13.17	13.71	13.68	14.21	14.69
	8H	8.31	8.79	8.83	9.31	9.80	13.26	13.74	13.78	14.25	14.75
	12H	8.73	9.16	9.24	9.65	10.22	13.38	13.80	13.89	14.30	14.87
12H	4H	7.12	7.70	7.60	8.18	8.66	13.02	13.60	13.51	14.08	14.56
	6H	8.04	8.52	8.56	9.04	9.53	13.16	13.64	13.68	14.15	14.65
	8H	8.56	8.98	9.07	9.48	10.05	13.29	13.72	13.80	14.21	14.78