

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: P1060406

Luminaire Tested: S124RDRP-S350D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060406
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-S350D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

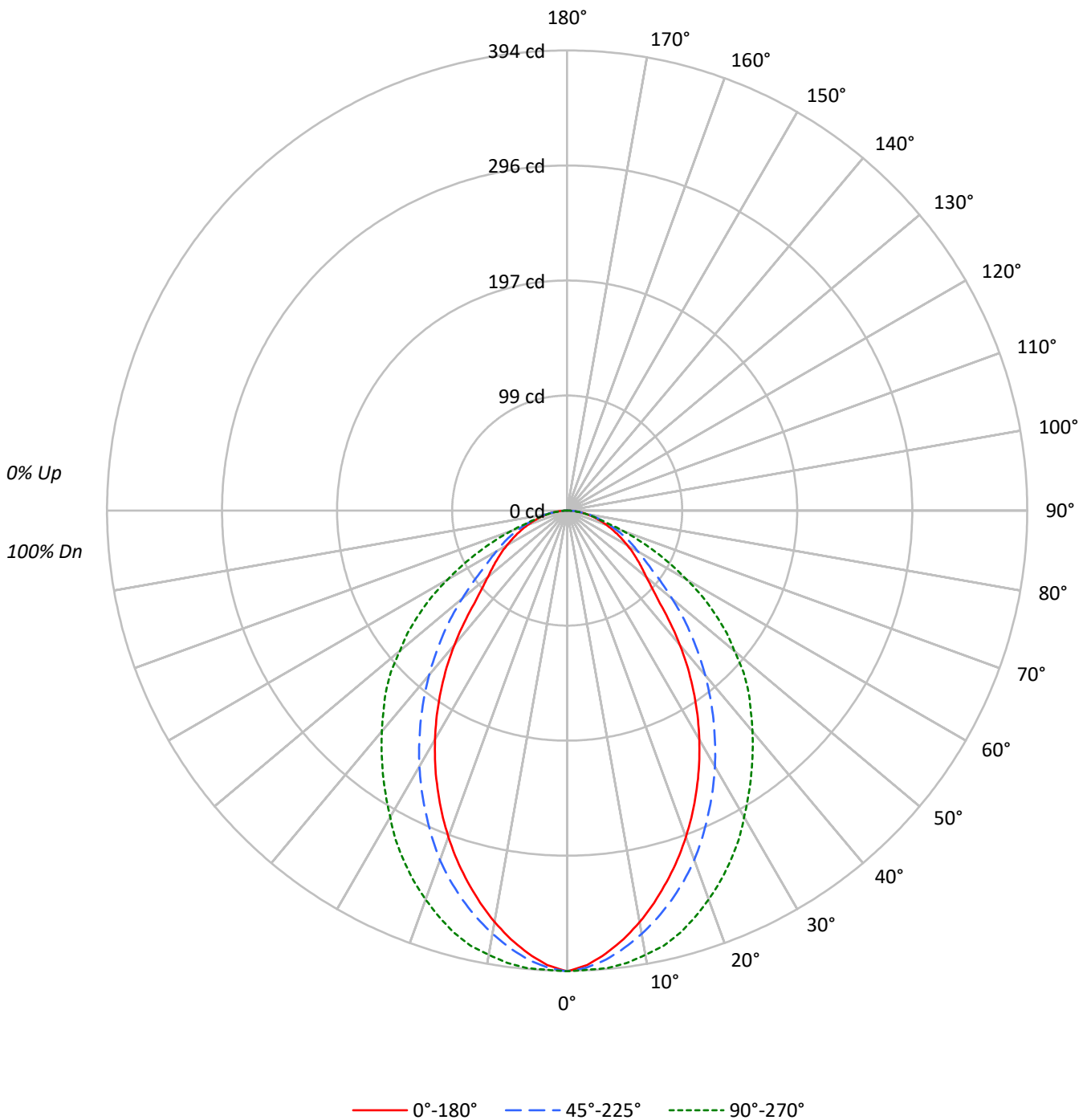
Lumens per Lamp: N/A
Luminaire Lumens: 718.2 lumens
Efficiency: N/A
Efficacy: 57.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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																		
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	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°	3397	3397	3397
5°	3292	3335	3399
10°	3128	3218	3377
15°	2934	3078	3336
20°	2724	2918	3248
25°	2495	2718	3143
30°	2249	2516	3014
35°	1982	2295	2891
40°	1687	2068	2774
45°	1370	1828	2674
50°	1186	1573	2504
55°	1099	1335	2321
60°	1025	1204	2037
65°	960	1129	1693
70°	896	1040	1282
75°	852	962	922
80°	798	883	779
85°	731	820	613

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	5.1
10°-20°	97.9	13.6
20°-30°	133.7	18.6
30°-40°	140.0	19.5
40°-50°	121.2	16.9
50°-60°	91.1	12.7
60°-70°	58.7	8.2
70°-80°	30.1	4.2
80°-90°	9.0	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°	268.0	37.3
0°-40°	408.0	56.8
0°-60°	620.3	86.4
0°-90°	718.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	718.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	394	394	394	394	394	
5°	381	387	386	389	393	36
15°	329	337	345	361	374	92
25°	263	272	286	308	331	120
35°	188	199	218	247	275	117
45°	112	124	150	187	220	89
55°	73	76	89	127	155	66
65°	47	48	55	67	83	47
75°	26	28	29	28	28	27
85°	7	9	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°	394.5	394.5	394.5	394.5	394.5
2.5°	389.5	394.5	391.6	392.4	393.6
5°	380.8	386.6	385.8	388.7	393.2
7.5°	370.1	376.3	377.5	384.1	390.7
10°	357.7	364.7	368.0	377.9	386.2
12.5°	344.0	351.5	357.2	369.6	381.6
15°	329.1	337.4	345.3	361.0	374.2
17.5°	313.8	322.1	332.4	349.8	364.7
20°	297.3	306.4	318.4	336.6	354.4
22.5°	280.3	289.8	302.7	322.5	343.2
25°	262.6	272.5	286.1	308.5	330.8
27.5°	244.8	254.7	270.0	293.6	318.0
30°	226.2	236.5	253.0	278.7	303.1
32.5°	207.6	218.7	235.7	263.0	289.0
35°	188.5	199.3	218.3	247.3	275.0
37.5°	169.5	180.7	201.0	232.0	260.9
40°	150.1	161.7	184.0	216.7	246.8
42.5°	130.7	143.1	166.6	201.0	232.8
45°	112.5	124.0	150.1	186.9	219.6
47.5°	98.8	106.7	133.6	173.2	204.7
50°	88.5	92.6	117.4	158.4	186.9
52.5°	80.6	83.5	102.5	142.2	172.4
55°	73.2	75.7	88.9	126.9	154.6
57.5°	66.6	67.8	78.6	112.1	137.7
60°	59.5	60.8	69.9	95.9	118.3
62.5°	53.3	54.2	62.8	80.6	100.5
65°	47.1	48.0	55.4	67.0	83.1
67.5°	41.3	42.6	48.4	54.6	66.2
70°	35.6	38.0	41.3	44.2	50.9
72.5°	30.6	33.1	34.7	35.6	36.0
75°	25.6	28.5	28.9	28.5	27.7
77.5°	20.7	23.2	23.2	22.3	21.5
80°	16.1	18.2	17.8	17.0	15.7
82.5°	12.0	13.2	12.8	12.0	10.8
85°	7.4	8.7	8.3	7.9	6.2
87.5°	3.7	5.0	4.5	4.1	2.5
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	10.68	12.16	11.05	12.48	12.79	14.46	15.94	14.82	16.25	16.57
	3H	12.34	13.66	12.71	13.99	14.35	15.57	16.90	15.95	17.23	17.59
	4H	13.00	14.25	13.40	14.60	14.98	15.86	17.11	16.26	17.45	17.83
	6H	13.52	14.67	13.93	15.04	15.43	16.06	17.21	16.47	17.57	17.97
	8H	13.70	14.79	14.13	15.18	15.59	16.11	17.21	16.54	17.60	18.00
	12H	13.82	14.87	14.26	15.25	15.68	16.14	17.18	16.57	17.57	18.00
4H	2H	11.46	12.71	11.86	13.06	13.44	14.61	15.86	15.01	16.21	16.59
	3H	13.32	14.36	13.73	14.76	15.16	15.93	16.96	16.34	17.36	17.76
	4H	14.13	15.06	14.56	15.48	15.92	16.33	17.26	16.77	17.68	18.12
	6H	14.78	15.59	15.24	16.03	16.49	16.65	17.46	17.11	17.90	18.36
	8H	15.01	15.76	15.47	16.21	16.68	16.74	17.50	17.21	17.94	18.41
	12H	15.18	15.85	15.66	16.33	16.80	16.80	17.48	17.29	17.96	18.43
8H	4H	14.48	15.24	14.95	15.68	16.15	16.47	17.22	16.93	17.67	18.13
	6H	15.28	15.90	15.77	16.39	16.87	16.88	17.50	17.38	17.99	18.47
	8H	15.60	16.16	16.11	16.67	17.15	17.03	17.59	17.55	18.10	18.59
	12H	15.86	16.35	16.37	16.85	17.41	17.16	17.65	17.67	18.14	18.71
12H	4H	14.51	15.18	14.99	15.66	16.13	16.47	17.14	16.95	17.62	18.10
	6H	15.34	15.90	15.85	16.41	16.90	16.90	17.46	17.42	17.97	18.46
	8H	15.72	16.22	16.23	16.71	17.28	17.10	17.60	17.61	18.09	18.66