

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: P1060461

Luminaire Tested: S124RDRP-S350D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060461
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-S350D950-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, 90 CRI LEDS
Ballast/Driver: -

Summary

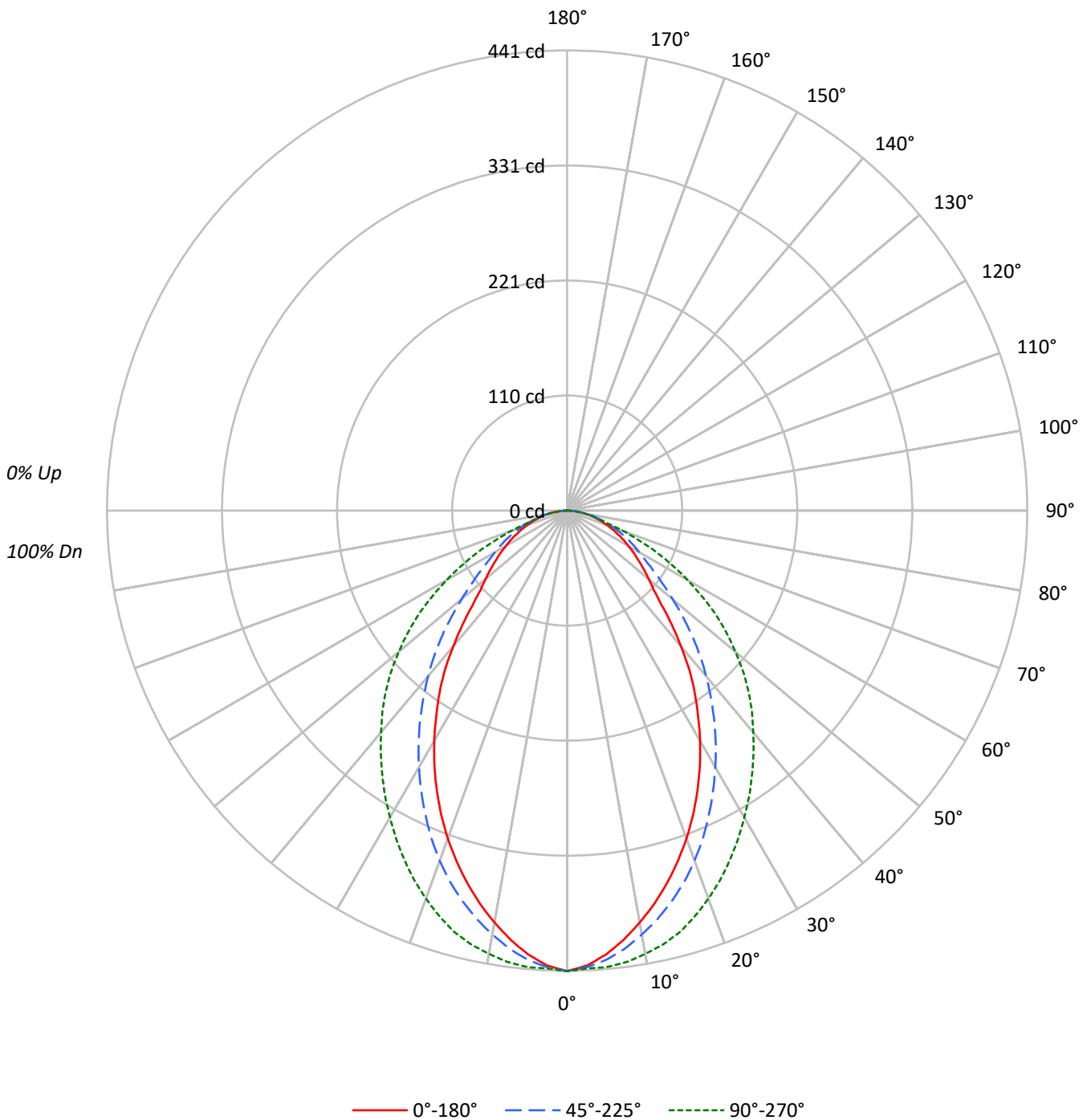
Lumens per Lamp: N/A
Luminaire Lumens: 810.0 lumens
Efficiency: N/A
Efficacy: 64.8 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	3801	3801	3801
5°	3691	3735	3796
10°	3505	3607	3771
15°	3295	3455	3726
20°	3064	3272	3626
25°	2810	3055	3508
30°	2533	2824	3376
35°	2242	2583	3248
40°	1905	2331	3118
45°	1560	2061	2997
50°	1366	1768	2821
55°	1255	1525	2609
60°	1164	1373	2301
65°	1090	1290	1926
70°	1022	1181	1445
75°	962	1078	1051
80°	893	987	893
85°	810	968	771

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2997 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	5.0
10°-20°	109.8	13.6
20°-30°	150.0	18.5
30°-40°	157.7	19.5
40°-50°	136.8	16.9
50°-60°	103.2	12.7
60°-70°	66.9	8.3
70°-80°	34.3	4.2
80°-90°	10.4	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°	300.6	37.1
0°-40°	458.3	56.6
0°-60°	698.3	86.2
0°-90°	810.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	810.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	441	441	441	441	441	
5°	427	433	432	436	439	40
15°	370	378	388	405	418	104
25°	296	306	322	346	369	136
35°	213	225	246	278	309	133
45°	128	140	169	211	246	101
55°	84	86	102	144	174	75
65°	54	55	63	77	94	53
75°	29	32	32	33	32	31
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°	441.4	441.4	441.4	441.4	441.4
2.5°	436.4	441.8	437.9	438.7	439.1
5°	427.0	432.8	432.1	435.6	439.1
7.5°	414.9	421.9	423.5	430.5	436.4
10°	400.8	408.6	412.5	423.9	431.3
12.5°	386.0	393.8	400.8	415.3	425.8
15°	369.6	378.5	387.5	405.1	418.0
17.5°	352.4	361.7	373.1	392.2	407.5
20°	334.4	343.8	357.1	377.8	395.7
22.5°	315.3	325.8	339.9	362.1	383.2
25°	295.7	306.3	321.5	346.1	369.2
27.5°	275.4	286.3	302.8	330.1	354.7
30°	254.7	266.4	284.0	312.9	339.5
32.5°	233.6	246.1	264.9	295.7	324.6
35°	213.3	225.0	245.7	278.5	309.0
37.5°	192.2	203.9	226.2	261.7	293.4
40°	169.5	182.4	207.4	244.2	277.4
42.5°	148.4	161.3	188.3	227.4	262.1
45°	128.1	140.2	169.2	211.3	246.1
47.5°	112.5	121.1	150.0	195.7	228.9
50°	102.0	105.9	132.0	178.5	210.6
52.5°	92.6	95.7	115.6	161.3	192.6
55°	83.6	85.9	101.6	144.2	173.8
57.5°	75.8	77.0	89.1	127.0	153.5
60°	67.6	69.1	79.7	109.4	133.6
62.5°	60.9	61.7	71.5	92.6	113.7
65°	53.5	54.7	63.3	76.6	94.5
67.5°	46.9	48.8	54.7	62.5	74.6
70°	40.6	43.4	46.9	50.8	57.4
72.5°	34.8	37.9	39.8	41.4	40.2
75°	28.9	32.4	32.4	32.8	31.6
77.5°	23.4	26.6	26.2	25.8	24.2
80°	18.0	20.7	19.9	19.5	18.0
82.5°	13.3	15.2	14.5	14.1	12.1
85°	8.2	10.2	9.8	9.4	7.8
87.5°	3.9	5.9	5.5	5.1	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	11.15	12.63	11.51	12.95	13.26	14.88	16.37	15.25	16.68	17.00
	3H	12.81	14.14	13.19	14.47	14.83	16.01	17.34	16.39	17.67	18.03
	4H	13.48	14.73	13.88	15.08	15.45	16.30	17.55	16.70	17.90	18.28
	6H	13.99	15.14	14.40	15.51	15.90	16.50	17.66	16.91	18.02	18.41
	8H	14.16	15.26	14.59	15.65	16.05	16.56	17.65	16.98	18.04	18.45
	12H	14.28	15.33	14.71	15.71	16.14	16.59	17.64	17.02	18.02	18.45
4H	2H	11.94	13.19	12.34	13.53	13.91	15.05	16.30	15.45	16.65	17.02
	3H	13.81	14.84	14.22	15.24	15.65	16.38	17.41	16.79	17.81	18.21
	4H	14.61	15.54	15.04	15.96	16.40	16.79	17.72	17.23	18.14	18.58
	6H	15.25	16.06	15.71	16.51	16.97	17.11	17.92	17.57	18.37	18.83
	8H	15.48	16.23	15.94	16.68	17.15	17.21	17.97	17.67	18.41	18.88
	12H	15.64	16.32	16.13	16.80	17.27	17.28	17.96	17.76	18.44	18.91
8H	4H	14.96	15.72	15.42	16.16	16.63	16.93	17.68	17.39	18.13	18.60
	6H	15.75	16.37	16.25	16.87	17.34	17.35	17.97	17.84	18.46	18.94
	8H	16.07	16.63	16.58	17.14	17.63	17.50	18.06	18.02	18.57	19.06
	12H	16.33	16.83	16.84	17.32	17.89	17.64	18.14	18.15	18.63	19.20
12H	4H	14.99	15.66	15.47	16.14	16.62	16.93	17.61	17.41	18.09	18.56
	6H	15.81	16.37	16.33	16.88	17.37	17.37	17.93	17.88	18.44	18.93
	8H	16.20	16.69	16.71	17.18	17.75	17.58	18.07	18.09	18.57	19.13