

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060847

Luminaire Tested: S124RDR-H350D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060847
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: S124RDR-H350D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

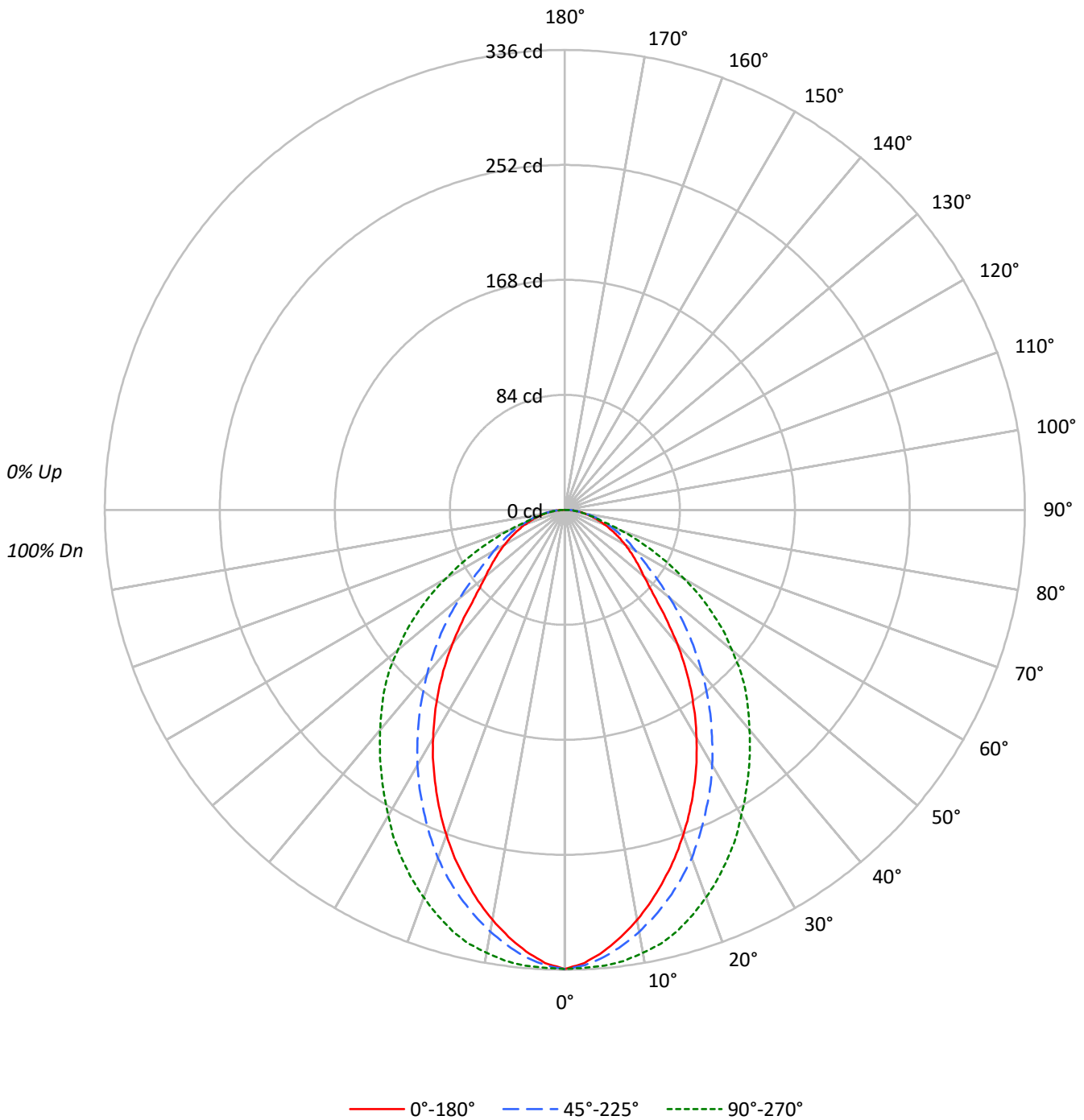
Lumens per Lamp: N/A
Luminaire Lumens: 610.8 lumens
Efficiency: N/A
Efficacy: 52.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (Ain): 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	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°	2889	2889	2889
5°	2800	2836	2891
10°	2660	2737	2872
15°	2495	2617	2838
20°	2317	2482	2762
25°	2122	2313	2673
30°	1913	2140	2563
35°	1686	1952	2459
40°	1435	1759	2359
45°	1165	1555	2274
50°	1009	1338	2130
55°	934	1135	1974
60°	871	1023	1733
65°	817	960	1441
70°	760	886	1090
75°	725	818	785
80°	679	749	664
85°	622	692	524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2274 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	5.1
10°-20°	83.3	13.6
20°-30°	113.7	18.6
30°-40°	119.1	19.5
40°-50°	103.1	16.9
50°-60°	77.5	12.7
60°-70°	50.0	8.2
70°-80°	25.6	4.2
80°-90°	7.7	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°	227.9	37.3
0°-40°	347.0	56.8
0°-60°	527.6	86.4
0°-90°	610.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	610.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	336	336	336	336	336	
5°	324	329	328	331	334	30
15°	280	287	294	307	318	78
25°	223	232	243	262	281	102
35°	160	170	186	210	234	100
45°	96	106	128	159	187	75
55°	62	64	76	108	132	56
65°	40	41	47	57	71	40
75°	22	24	25	24	24	23
85°	6	7	7	7	5	7
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	335.5	335.5	335.5	335.5	335.5
2.5°	331.3	335.5	333.0	333.7	334.8
5°	323.9	328.8	328.1	330.6	334.4
7.5°	314.7	320.0	321.1	326.7	332.3
10°	304.2	310.2	313.0	321.4	328.5
12.5°	292.6	298.9	303.8	314.4	324.6
15°	279.9	287.0	293.6	307.0	318.3
17.5°	266.9	273.9	282.7	297.5	310.2
20°	252.8	260.6	270.8	286.3	301.4
22.5°	238.4	246.5	257.4	274.3	291.9
25°	223.3	231.7	243.4	262.3	281.3
27.5°	208.2	216.6	229.6	249.7	270.4
30°	192.4	201.2	215.2	237.0	257.8
32.5°	176.5	186.0	200.4	223.7	245.8
35°	160.4	169.5	185.7	210.3	233.9
37.5°	144.2	153.7	170.9	197.3	221.9
40°	127.7	137.5	156.5	184.3	209.9
42.5°	111.1	121.7	141.7	170.9	198.0
45°	95.7	105.5	127.7	159.0	186.7
47.5°	84.0	90.7	113.6	147.3	174.1
50°	75.3	78.8	99.9	134.7	159.0
52.5°	68.6	71.0	87.2	121.0	146.6
55°	62.2	64.4	75.6	108.0	131.5
57.5°	56.6	57.7	66.8	95.3	117.1
60°	50.6	51.7	59.4	81.6	100.6
62.5°	45.4	46.1	53.5	68.6	85.5
65°	40.1	40.8	47.1	57.0	70.7
67.5°	35.2	36.2	41.1	46.4	56.3
70°	30.2	32.4	35.2	37.6	43.3
72.5°	26.0	28.1	29.5	30.2	30.6
75°	21.8	24.3	24.6	24.3	23.6
77.5°	17.6	19.7	19.7	19.0	18.3
80°	13.7	15.5	15.1	14.4	13.4
82.5°	10.2	11.3	10.9	10.2	9.1
85°	6.3	7.4	7.0	6.7	5.3
87.5°	3.2	4.2	3.9	3.5	2.1
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	10.12	11.60	10.49	11.92	12.23	13.89	15.38	14.26	15.69	16.00
	3H	11.77	13.10	12.15	13.43	13.79	15.01	16.33	15.38	16.66	17.03
	4H	12.44	13.69	12.85	14.04	14.42	15.30	16.54	15.70	16.89	17.27
	6H	12.96	14.11	13.37	14.47	14.87	15.49	16.64	15.91	17.01	17.40
	8H	13.14	14.23	13.57	14.62	15.03	15.55	16.64	15.97	17.03	17.43
	12H	13.26	14.31	13.70	14.69	15.12	15.57	16.62	16.00	17.00	17.43
4H	2H	10.90	12.15	11.30	12.50	12.88	14.05	15.30	14.45	15.64	16.02
	3H	12.76	13.80	13.17	14.20	14.60	15.36	16.39	15.77	16.80	17.20
	4H	13.57	14.50	14.01	14.92	15.36	15.77	16.70	16.20	17.12	17.56
	6H	14.22	15.03	14.68	15.47	15.93	16.09	16.89	16.55	17.34	17.80
	8H	14.45	15.20	14.91	15.65	16.12	16.18	16.93	16.64	17.38	17.85
	12H	14.62	15.29	15.10	15.77	16.24	16.24	16.91	16.72	17.39	17.86
8H	4H	13.92	14.68	14.39	15.12	15.59	15.90	16.66	16.37	17.10	17.57
	6H	14.72	15.34	15.21	15.83	16.31	16.32	16.94	16.81	17.43	17.91
	8H	15.04	15.60	15.55	16.11	16.60	16.47	17.03	16.98	17.54	18.03
	12H	15.30	15.80	15.81	16.29	16.85	16.59	17.09	17.10	17.58	18.14
12H	4H	13.95	14.62	14.43	15.10	15.58	15.91	16.58	16.39	17.06	17.53
	6H	14.78	15.34	15.29	15.85	16.34	16.34	16.90	16.85	17.41	17.90
	8H	15.17	15.66	15.68	16.15	16.72	16.54	17.03	17.05	17.53	18.09