

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: P1060910

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060910
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-H575D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

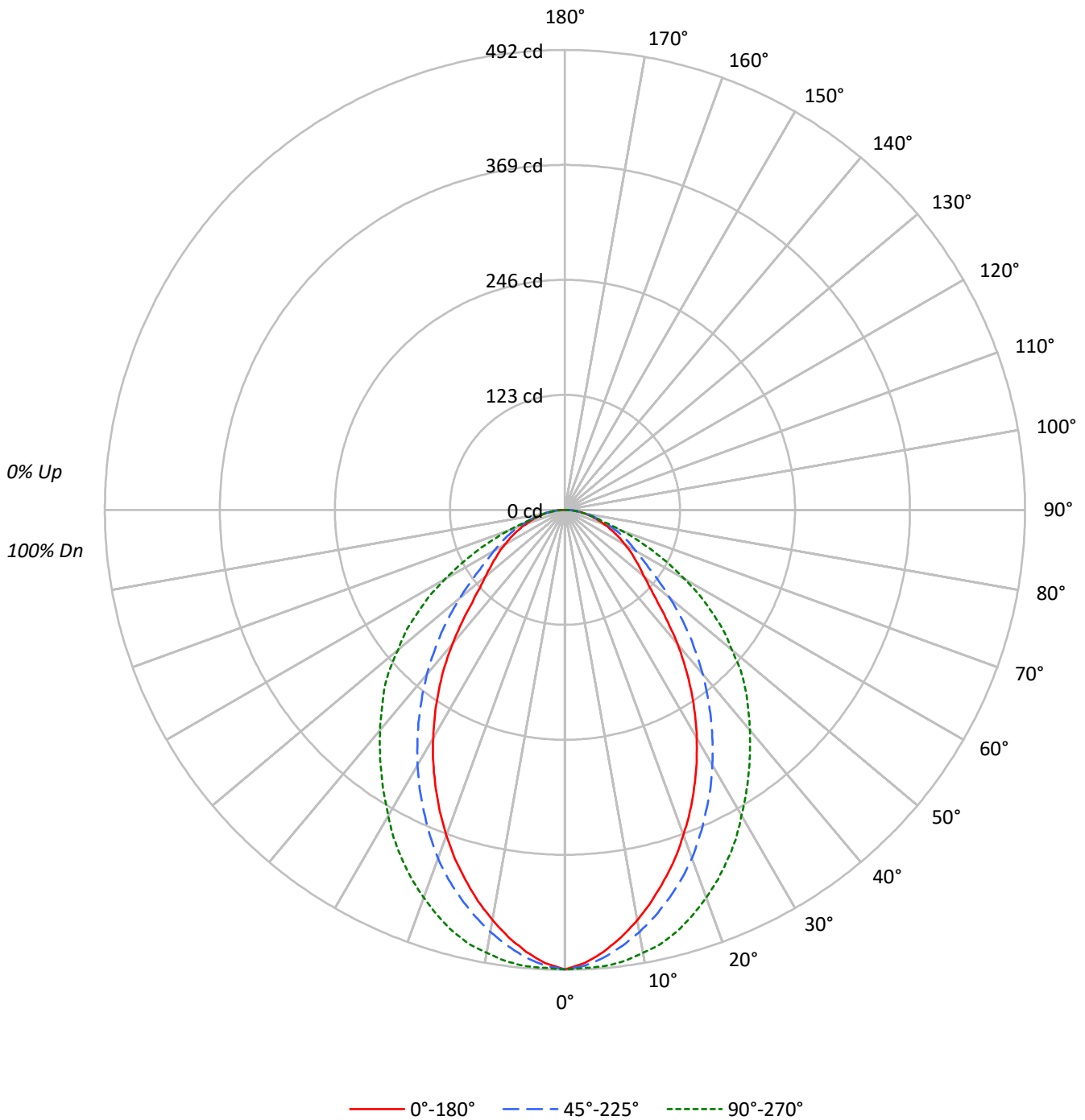
Lumens per Lamp: N/A
Luminaire Lumens: 894.9 lumens
Efficiency: N/A
Efficacy: 51.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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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CATALOG NUMBER: S124RDR-H575D927-X4F0-XX-UDD-WVL-S

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°	4233	4233	4233
5°	4102	4155	4236
10°	3897	4010	4208
15°	3656	3835	4157
20°	3395	3636	4047
25°	3109	3388	3916
30°	2802	3135	3756
35°	2470	2860	3601
40°	2102	2578	3458
45°	1707	2277	3332
50°	1478	1960	3120
55°	1369	1663	2893
60°	1278	1500	2539
65°	1196	1406	2111
70°	1115	1297	1596
75°	1061	1201	1148
80°	997	1101	972
85°	919	1018	761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	5.1
10°-20°	122.0	13.6
20°-30°	166.6	18.6
30°-40°	174.5	19.5
40°-50°	151.0	16.9
50°-60°	113.5	12.7
60°-70°	73.2	8.2
70°-80°	37.5	4.2
80°-90°	11.2	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°	333.9	37.3
0°-40°	508.5	56.8
0°-60°	773.0	86.4
0°-90°	894.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	894.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	475	482	481	484	490	44
15°	410	420	430	450	466	115
25°	327	340	357	384	412	150
35°	235	248	272	308	343	146
45°	140	155	187	233	274	110
55°	91	94	111	158	193	82
65°	59	60	69	84	104	58
75°	32	36	36	36	34	34
85°	9	11	10	10	8	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	491.6	491.6	491.6	491.6	491.6
2.5°	485.4	491.6	488.0	489.0	490.5
5°	474.6	481.8	480.7	484.3	490.0
7.5°	461.2	468.9	470.4	478.7	486.9
10°	445.7	454.5	458.6	470.9	481.3
12.5°	428.7	438.0	445.2	460.6	475.6
15°	410.1	420.5	430.2	449.8	466.3
17.5°	391.1	401.4	414.3	435.9	454.5
20°	370.5	381.8	396.8	419.4	441.6
22.5°	349.3	361.2	377.2	401.9	427.7
25°	327.2	339.6	356.6	384.4	412.2
27.5°	305.0	317.4	336.5	365.8	396.2
30°	281.8	294.7	315.3	347.3	377.7
32.5°	258.7	272.6	293.7	327.7	360.2
35°	235.0	248.4	272.1	308.1	342.6
37.5°	211.3	225.2	250.4	289.1	325.1
40°	187.0	201.5	229.3	270.0	307.6
42.5°	162.8	178.3	207.7	250.4	290.1
45°	140.2	154.6	187.0	232.9	273.6
47.5°	123.1	132.9	166.4	215.9	255.1
50°	110.3	115.4	146.3	197.3	232.9
52.5°	100.5	104.1	127.8	177.2	214.9
55°	91.2	94.3	110.8	158.2	192.7
57.5°	83.0	84.5	97.9	139.6	171.6
60°	74.2	75.7	87.1	119.5	147.4
62.5°	66.5	67.5	78.3	100.5	125.2
65°	58.7	59.8	69.0	83.5	103.6
67.5°	51.5	53.1	60.3	68.0	82.4
70°	44.3	47.4	51.5	55.1	63.4
72.5°	38.1	41.2	43.3	44.3	44.8
75°	31.9	35.6	36.1	35.6	34.5
77.5°	25.8	28.9	28.9	27.8	26.8
80°	20.1	22.7	22.2	21.1	19.6
82.5°	14.9	16.5	16.0	14.9	13.4
85°	9.3	10.8	10.3	9.8	7.7
87.5°	4.6	6.2	5.7	5.2	3.1
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	11.45	12.93	11.81	13.24	13.56	15.22	16.70	15.58	17.01	17.33
	3H	13.10	14.43	13.48	14.76	15.12	16.33	17.66	16.71	17.99	18.35
	4H	13.77	15.02	14.17	15.36	15.74	16.62	17.87	17.02	18.22	18.60
	6H	14.28	15.43	14.70	15.80	16.19	16.82	17.97	17.23	18.34	18.73
	8H	14.47	15.56	14.89	15.95	16.35	16.87	17.97	17.30	18.36	18.76
	12H	14.59	15.64	15.02	16.02	16.45	16.90	17.95	17.33	18.33	18.76
4H	2H	12.23	13.47	12.63	13.82	14.20	15.38	16.62	15.78	16.97	17.35
	3H	14.09	15.12	14.50	15.52	15.92	16.69	17.72	17.10	18.12	18.52
	4H	14.90	15.83	15.33	16.24	16.68	17.10	18.03	17.53	18.44	18.88
	6H	15.55	16.35	16.00	16.80	17.26	17.41	18.22	17.87	18.66	19.12
	8H	15.77	16.53	16.24	16.97	17.44	17.50	18.26	17.97	18.70	19.17
	12H	15.95	16.62	16.43	17.10	17.57	17.57	18.24	18.05	18.72	19.19
8H	4H	15.25	16.00	15.71	16.45	16.92	17.23	17.98	17.69	18.43	18.90
	6H	16.04	16.67	16.54	17.16	17.64	17.64	18.26	18.14	18.76	19.23
	8H	16.36	16.92	16.88	17.43	17.92	17.79	18.35	18.31	18.86	19.35
	12H	16.63	17.12	17.14	17.62	18.18	17.92	18.41	18.43	18.90	19.47
12H	4H	15.28	15.95	15.76	16.43	16.90	17.23	17.91	17.72	18.39	18.86
	6H	16.11	16.67	16.62	17.18	17.66	17.66	18.22	18.18	18.73	19.22
	8H	16.49	16.99	17.00	17.48	18.04	17.87	18.36	18.38	18.85	19.42