

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: P1060919

Luminaire Tested: S124RDR-H575D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060919
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-H575D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

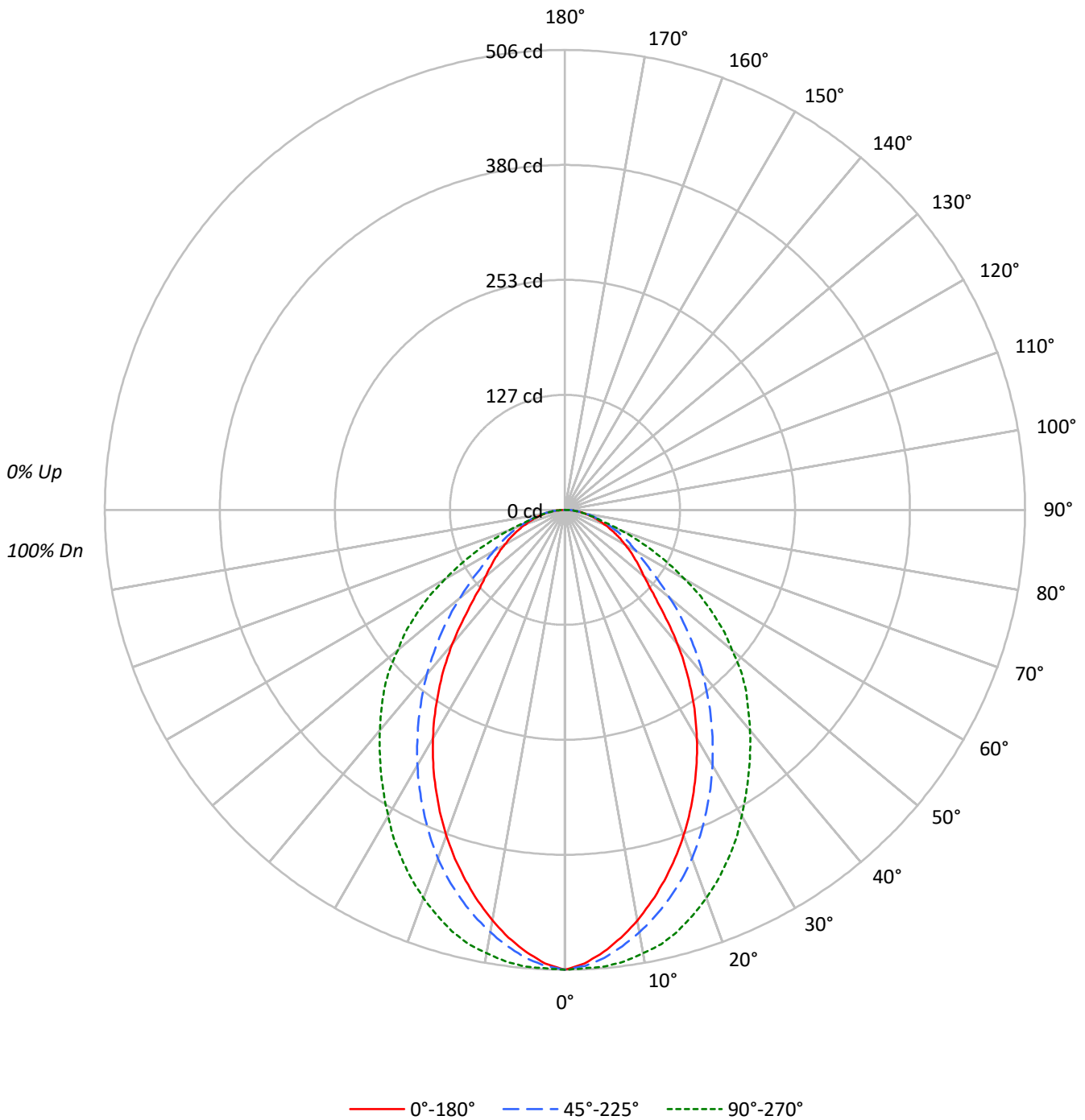
Lumens per Lamp: N/A
Luminaire Lumens: 921.0 lumens
Efficiency: N/A
Efficacy: 52.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1060919

CATALOG NUMBER: S124RDR-H575D930-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87													87															
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75													75															
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65													65															
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57													57															
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50													50															
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45													45															
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41													41															
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37													37															
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34													34															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31													31															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4356	4356	4356
5°	4222	4277	4359
10°	4011	4127	4331
15°	3763	3948	4278
20°	3494	3742	4165
25°	3199	3487	4030
30°	2885	3227	3865
35°	2542	2943	3707
40°	2164	2653	3559
45°	1756	2344	3429
50°	1521	2018	3211
55°	1410	1711	2977
60°	1316	1543	2613
65°	1233	1449	2172
70°	1148	1334	1642
75°	1095	1234	1181
80°	1027	1131	1002
85°	939	1047	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3429 cd/sqm

TEST NUMBER: P1060919

CATALOG NUMBER: S124RDR-H575D930-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	5.1
10°-20°	125.5	13.6
20°-30°	171.4	18.6
30°-40°	179.6	19.5
40°-50°	155.5	16.9
50°-60°	116.8	12.7
60°-70°	75.3	8.2
70°-80°	38.6	4.2
80°-90°	11.5	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°	343.7	37.3
0°-40°	523.3	56.8
0°-60°	795.5	86.4
0°-90°	921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	488	496	495	498	504	46
15°	422	433	443	463	480	118
25°	337	350	367	396	424	154
35°	242	256	280	317	353	151
45°	144	159	192	240	282	114
55°	94	97	114	163	198	84
65°	60	62	71	86	107	60
75°	33	37	37	37	36	35
85°	10	11	11	10	8	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	505.9	505.9	505.9	505.9	505.9
2.5°	499.5	505.9	502.2	503.3	504.8
5°	488.4	495.8	494.8	498.5	504.3
7.5°	474.6	482.6	484.2	492.6	501.1
10°	458.7	467.7	472.0	484.7	495.3
12.5°	441.2	450.8	458.2	474.1	489.5
15°	422.1	432.7	442.8	462.9	479.9
17.5°	402.5	413.1	426.4	448.6	467.7
20°	381.3	393.0	408.3	431.7	454.5
22.5°	359.5	371.7	388.2	413.6	440.1
25°	336.7	349.5	367.0	395.6	424.2
27.5°	313.9	326.7	346.3	376.5	407.8
30°	290.1	303.3	324.5	357.4	388.7
32.5°	266.2	280.5	302.3	337.3	370.7
35°	241.8	255.6	280.0	317.1	352.6
37.5°	217.4	231.7	257.7	297.5	334.6
40°	192.5	207.3	236.0	277.9	316.6
42.5°	167.6	183.5	213.7	257.7	298.6
45°	144.2	159.1	192.5	239.7	281.6
47.5°	126.7	136.8	171.3	222.2	262.5
50°	113.5	118.8	150.6	203.1	239.7
52.5°	103.4	107.1	131.5	182.4	221.1
55°	93.9	97.0	114.0	162.8	198.3
57.5°	85.4	87.0	100.8	143.7	176.6
60°	76.4	78.0	89.6	123.0	151.7
62.5°	68.4	69.5	80.6	103.4	128.9
65°	60.5	61.5	71.1	85.9	106.6
67.5°	53.0	54.6	62.0	70.0	84.8
70°	45.6	48.8	53.0	56.7	65.2
72.5°	39.2	42.4	44.5	45.6	46.1
75°	32.9	36.6	37.1	36.6	35.5
77.5°	26.5	29.7	29.7	28.6	27.6
80°	20.7	23.3	22.8	21.7	20.2
82.5°	15.4	17.0	16.4	15.4	13.8
85°	9.5	11.1	10.6	10.1	8.0
87.5°	4.8	6.4	5.8	5.3	3.2
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	11.55	13.03	11.91	13.34	13.66	15.32	16.80	15.68	17.12	17.43
	3H	13.20	14.53	13.58	14.86	15.22	16.43	17.76	16.81	18.09	18.45
	4H	13.87	15.12	14.27	15.47	15.85	16.72	17.97	17.12	18.32	18.70
	6H	14.38	15.53	14.80	15.90	16.29	16.92	18.07	17.33	18.44	18.83
	8H	14.57	15.66	14.99	16.05	16.45	16.97	18.07	17.40	18.46	18.86
	12H	14.69	15.74	15.12	16.12	16.55	17.00	18.05	17.43	18.43	18.86
4H	2H	12.33	13.58	12.73	13.93	14.30	15.48	16.72	15.88	17.07	17.45
	3H	14.19	15.22	14.60	15.62	16.03	16.79	17.82	17.20	18.22	18.62
	4H	15.00	15.93	15.43	16.34	16.78	17.20	18.13	17.63	18.54	18.98
	6H	15.65	16.45	16.10	16.90	17.36	17.51	18.32	17.97	18.76	19.22
	8H	15.88	16.63	16.34	17.07	17.54	17.61	18.36	18.07	18.80	19.27
	12H	16.04	16.72	16.53	17.20	17.67	17.67	18.34	18.15	18.82	19.29
8H	4H	15.35	16.10	15.81	16.55	17.02	17.33	18.08	17.79	18.53	19.00
	6H	16.14	16.76	16.64	17.26	17.73	17.74	18.36	18.24	18.86	19.33
	8H	16.46	17.02	16.98	17.53	18.02	17.89	18.45	18.41	18.96	19.45
	12H	16.73	17.22	17.24	17.71	18.28	18.02	18.51	18.53	19.00	19.57
12H	4H	15.38	16.05	15.86	16.53	17.00	17.33	18.01	17.82	18.49	18.96
	6H	16.20	16.76	16.72	17.27	17.76	17.76	18.32	18.28	18.83	19.32
	8H	16.59	17.08	17.10	17.58	18.14	17.97	18.46	18.48	18.95	19.52