

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: P1060913

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060913
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D930-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

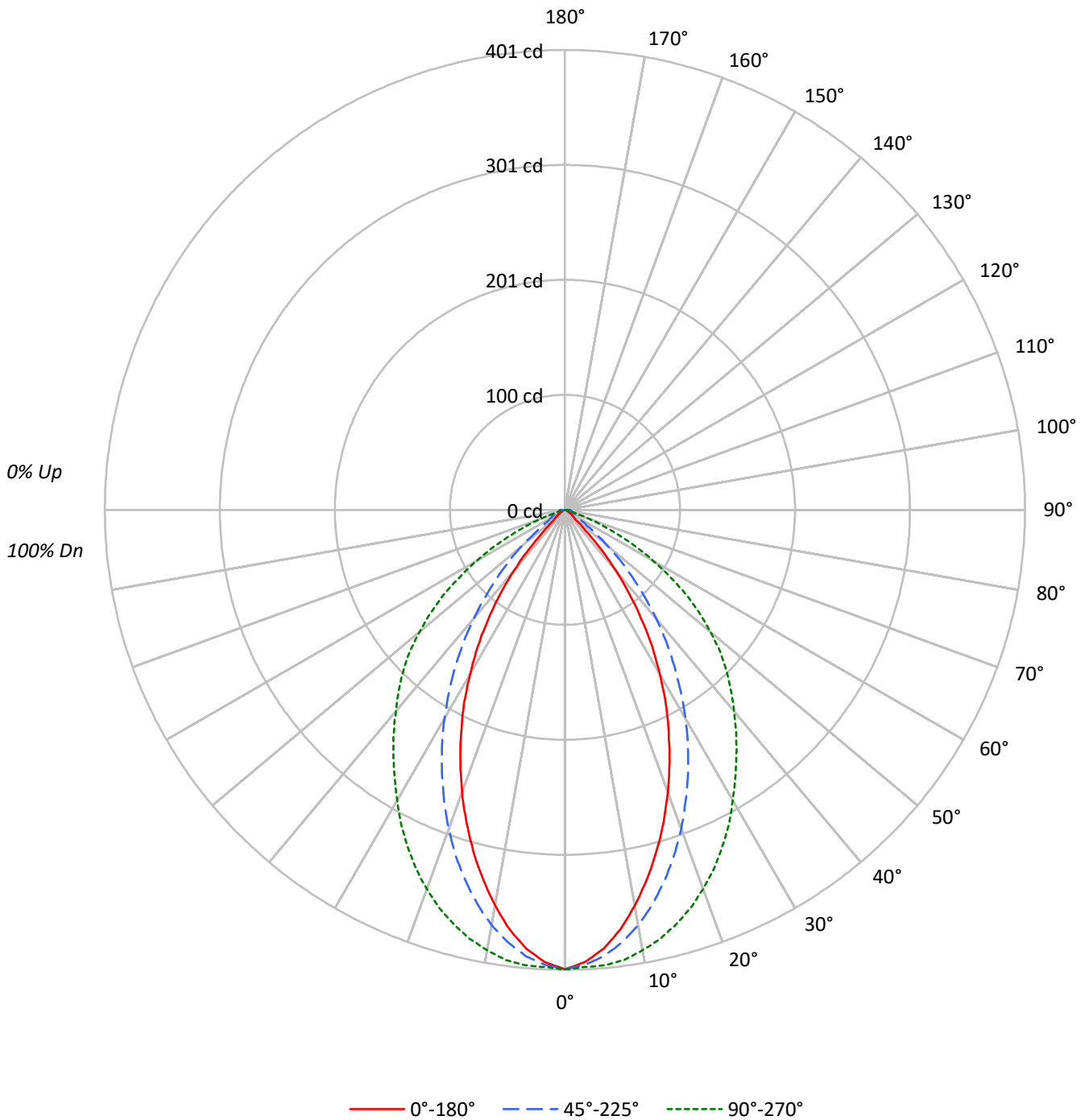
Lumens per Lamp: N/A
Luminaire Lumens: 502.7 lumens
Efficiency: N/A
Efficacy: 28.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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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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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3450	3450	3450
5°	3320	3375	3445
10°	3062	3215	3410
15°	2748	2985	3335
20°	2402	2713	3224
25°	2031	2410	3080
30°	1641	2089	2907
35°	1222	1746	2738
40°	776	1384	2576
45°	311	1014	2430
50°	135	647	2217
55°	104	335	1935
60°	72	229	1535
65°	55	226	1049
70°	53	201	481
75°	70	213	193
80°	104	238	208
85°	207	415	316

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2430 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	7.3
10°-20°	94.6	18.8
20°-30°	119.5	23.8
30°-40°	109.7	21.8
40°-50°	74.8	14.9
50°-60°	40.6	8.1
60°-70°	17.2	3.4
70°-80°	5.9	1.2
80°-90°	3.8	0.7
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°	250.7	49.9
0°-40°	360.4	71.7
0°-60°	475.8	94.6
0°-90°	502.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	502.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	401	401	401	401	401	
5°	384	390	390	394	398	36
15°	308	318	335	359	374	86
25°	214	228	254	293	324	98
35°	116	132	166	218	260	72
45°	26	41	83	148	200	23
55°	7	7	22	81	129	6
65°	3	3	11	26	52	3
75°	2	6	6	6	6	2
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	400.6	400.6	400.6	400.6	400.6
2.5°	394.8	399.5	396.9	397.9	399.0
5°	384.1	390.0	390.5	393.7	398.5
7.5°	369.3	376.2	380.4	388.4	395.8
10°	350.2	358.7	367.7	380.4	390.0
12.5°	330.0	339.0	352.3	370.3	383.1
15°	308.3	318.3	334.8	358.7	374.1
17.5°	285.5	296.6	316.2	344.3	364.0
20°	262.1	274.3	296.1	327.9	351.8
22.5°	238.2	251.0	274.8	310.9	339.0
25°	213.8	227.6	253.6	292.9	324.2
27.5°	190.5	203.2	231.9	274.8	309.3
30°	165.0	179.3	210.1	256.3	292.4
32.5°	141.7	155.5	187.8	237.2	276.4
35°	116.2	131.6	166.1	218.1	260.5
37.5°	92.3	107.2	144.8	200.0	245.1
40°	69.0	84.4	123.1	182.0	229.2
42.5°	46.2	62.6	102.4	163.4	214.4
45°	25.5	40.9	83.3	147.5	199.5
47.5°	13.3	22.3	65.3	131.6	183.6
50°	10.1	12.2	48.3	114.1	165.5
52.5°	8.5	9.0	32.9	96.6	147.5
55°	6.9	7.4	22.3	81.2	128.9
57.5°	5.3	5.8	15.9	66.3	108.2
60°	4.2	4.8	13.3	50.9	89.1
62.5°	3.2	3.7	12.7	37.7	70.0
65°	2.7	3.2	11.1	25.5	51.5
67.5°	2.1	3.2	9.6	16.4	34.5
70°	2.1	4.2	8.0	10.6	19.1
72.5°	2.1	4.8	6.9	6.9	6.9
75°	2.1	5.8	6.4	5.8	5.8
77.5°	2.1	5.3	5.3	5.3	5.3
80°	2.1	4.8	4.8	4.8	4.2
82.5°	2.1	4.2	4.8	4.8	3.7
85°	2.1	4.2	4.2	4.2	3.2
87.5°	1.6	4.2	4.2	4.2	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	0.00	0.00	0.00	0.00	0.00	12.74	14.02	13.11	14.33	14.65
	3H	0.00	0.00	0.00	0.00	0.00	13.10	14.22	13.48	14.56	14.92
	4H	0.00	0.00	0.00	0.00	0.00	13.06	14.11	13.47	14.46	14.85
	6H	0.00	0.00	0.00	0.31	0.70	13.04	14.00	13.45	14.37	14.77
	8H	0.00	0.56	0.08	0.95	1.36	13.03	13.94	13.46	14.33	14.73
	12H	0.44	1.32	0.88	1.70	2.13	13.03	13.90	13.46	14.28	14.71
4H	2H	0.00	0.00	0.00	0.00	0.20	12.54	13.59	12.95	13.94	14.33
	3H	0.00	0.70	0.26	1.10	1.51	12.94	13.79	13.35	14.20	14.60
	4H	1.29	2.05	1.72	2.47	2.91	12.92	13.68	13.35	14.10	14.55
	6H	2.54	3.20	3.00	3.64	4.11	12.94	13.60	13.40	14.04	14.51
	8H	3.10	3.72	3.57	4.16	4.63	12.95	13.56	13.42	14.01	14.48
	12H	3.77	4.31	4.25	4.79	5.27	12.98	13.53	13.47	14.01	14.48
8H	4H	2.37	2.99	2.84	3.43	3.90	12.82	13.43	13.29	13.88	14.35
	6H	3.99	4.49	4.49	4.99	5.47	12.87	13.37	13.37	13.87	14.35
	8H	4.81	5.27	5.34	5.78	6.27	12.93	13.38	13.45	13.90	14.39
	12H	5.77	6.17	6.28	6.66	7.23	13.04	13.44	13.56	13.94	14.51
12H	4H	2.56	3.10	3.05	3.59	4.06	12.78	13.32	13.27	13.81	14.28
	6H	4.34	4.79	4.86	5.31	5.80	12.84	13.29	13.36	13.81	14.30
	8H	5.35	5.75	5.87	6.25	6.82	12.94	13.34	13.46	13.84	14.41