

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: P1061000

Luminaire Tested: S124RDR-H795D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061000  
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-H795D930-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: -

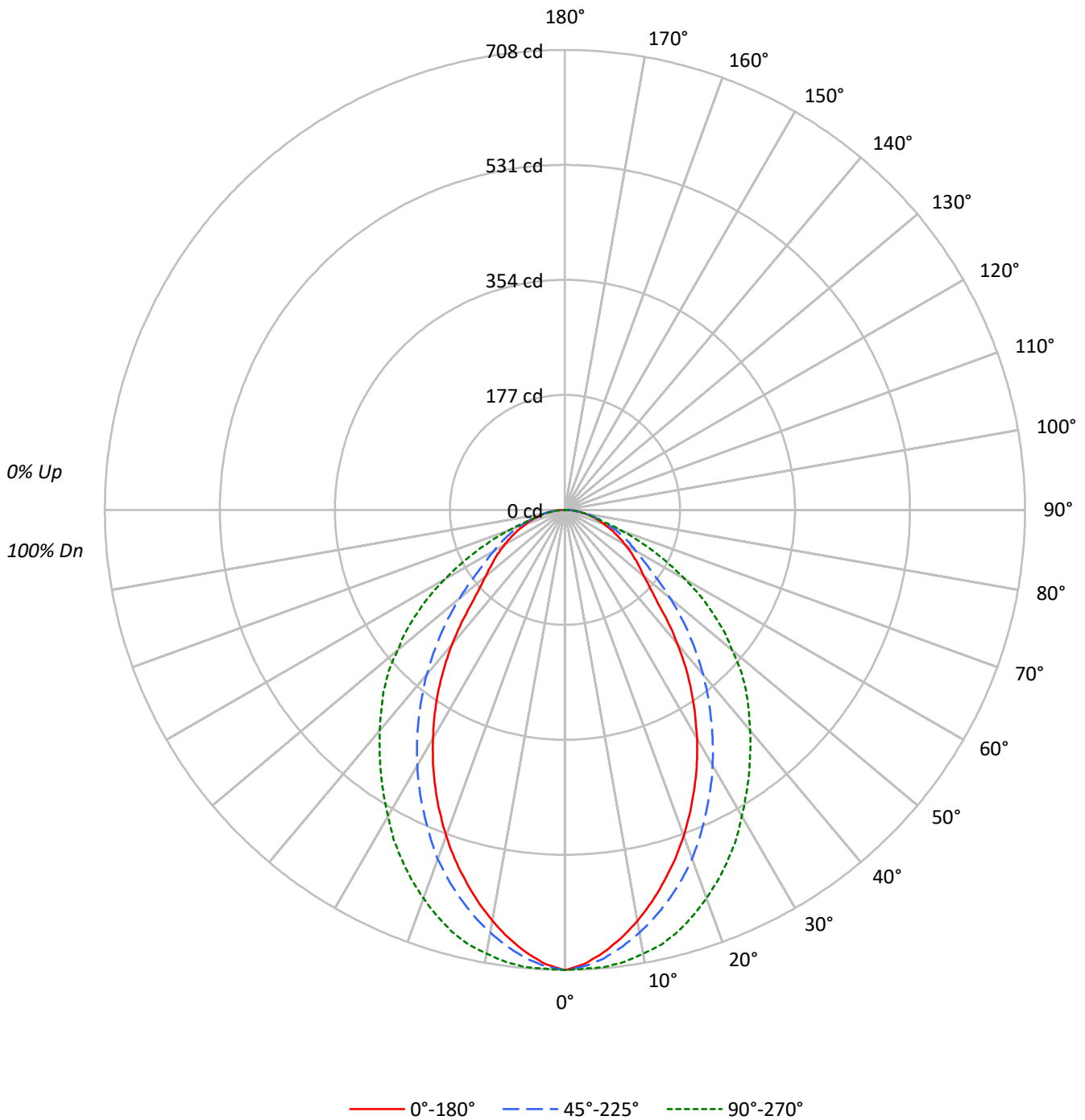
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1289.9 lumens  
Efficiency: N/A  
Efficacy: 54.9 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): 23.5  
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									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°	6101	6101	6101
5°	5913	5989	6105
10°	5617	5780	6066
15°	5270	5528	5992
20°	4893	5241	5833
25°	4481	4883	5645
30°	4039	4519	5413
35°	3560	4122	5192
40°	3031	3715	4984
45°	2460	3283	4803
50°	2129	2825	4497
55°	1974	2398	4171
60°	1841	2161	3658
65°	1726	2027	3042
70°	1609	1871	2299
75°	1530	1730	1657
80°	1438	1582	1398
85°	1324	1472	1097

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4803 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.4	5.1
10°-20°	175.8	13.6
20°-30°	240.1	18.6
30°-40°	251.5	19.5
40°-50°	217.7	16.9
50°-60°	163.6	12.7
60°-70°	105.5	8.2
70°-80°	54.1	4.2
80°-90°	16.2	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°	481.3	37.3
0°-40°	732.8	56.8
0°-60°	1114.2	86.4
0°-90°	1289.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1289.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	684	694	693	698	706	64
15°	591	606	620	648	672	166
25°	472	489	514	554	594	216
35°	339	358	392	444	494	211
45°	202	223	270	336	394	159
55°	132	136	160	228	278	118
65°	85	86	100	120	149	84
75°	46	51	52	51	50	49
85°	13	16	15	14	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	708.5	708.5	708.5	708.5	708.5
2.5°	699.6	708.5	703.3	704.8	707.0
5°	684.0	694.4	692.9	698.1	706.3
7.5°	664.7	675.8	678.1	689.9	701.8
10°	642.4	655.0	661.0	678.8	693.7
12.5°	617.9	631.3	641.7	664.0	685.5
15°	591.2	606.0	620.1	648.4	672.1
17.5°	563.7	578.5	597.1	628.3	655.0
20°	534.0	550.3	571.9	604.5	636.5
22.5°	503.5	520.6	543.6	579.3	616.4
25°	471.6	489.4	513.9	554.0	594.1
27.5°	439.7	457.5	485.0	527.3	571.1
30°	406.2	424.8	454.5	500.6	544.4
32.5°	372.8	392.9	423.3	472.3	519.1
35°	338.7	358.0	392.1	444.1	493.9
37.5°	304.5	324.5	360.9	416.6	468.6
40°	269.6	290.4	330.5	389.2	443.4
42.5°	234.7	257.0	299.3	360.9	418.1
45°	202.0	222.8	269.6	335.7	394.4
47.5°	177.5	191.6	239.9	311.2	367.6
50°	158.9	166.4	210.9	284.4	335.7
52.5°	144.8	150.0	184.2	255.5	309.7
55°	131.5	135.9	159.7	228.0	277.8
57.5°	119.6	121.8	141.1	201.3	247.3
60°	106.9	109.2	125.5	172.3	212.4
62.5°	95.8	97.3	112.9	144.8	180.5
65°	84.7	86.2	99.5	120.3	149.3
67.5°	74.3	76.5	86.9	98.0	118.8
70°	63.9	68.3	74.3	79.5	91.3
72.5°	55.0	59.4	62.4	63.9	64.6
75°	46.0	51.2	52.0	51.2	49.8
77.5°	37.1	41.6	41.6	40.1	38.6
80°	29.0	32.7	31.9	30.4	28.2
82.5°	21.5	23.8	23.0	21.5	19.3
85°	13.4	15.6	14.9	14.1	11.1
87.5°	6.7	8.9	8.2	7.4	4.5
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	12.72	14.20	13.08	14.51	14.83	16.49	17.97	16.86	18.29	18.60
	3H	14.37	15.70	14.75	16.03	16.39	17.60	18.93	17.98	19.26	19.62
	4H	15.04	16.29	15.44	16.64	17.02	17.89	19.14	18.29	19.49	19.87
	6H	15.55	16.70	15.97	17.07	17.46	18.09	19.24	18.50	19.61	20.00
	8H	15.74	16.83	16.16	17.22	17.62	18.14	19.24	18.57	19.63	20.03
	12H	15.86	16.91	16.29	17.29	17.72	18.17	19.22	18.60	19.60	20.03
4H	2H	13.50	14.74	13.90	15.09	15.47	16.65	17.89	17.05	18.24	18.62
	3H	15.36	16.39	15.77	16.79	17.19	17.96	18.99	18.37	19.39	19.79
	4H	16.17	17.10	16.60	17.51	17.95	18.37	19.30	18.80	19.71	20.15
	6H	16.82	17.62	17.27	18.07	18.53	18.68	19.49	19.14	19.93	20.39
	8H	17.04	17.80	17.51	18.24	18.71	18.78	19.53	19.24	19.97	20.44
	12H	17.21	17.89	17.70	18.37	18.84	18.84	19.51	19.32	19.99	20.46
8H	4H	16.52	17.27	16.98	17.72	18.18	18.50	19.26	18.97	19.70	20.17
	6H	17.31	17.93	17.81	18.43	18.90	18.91	19.53	19.41	20.03	20.51
	8H	17.63	18.19	18.15	18.70	19.19	19.06	19.62	19.58	20.13	20.62
	12H	17.90	18.39	18.41	18.88	19.45	19.19	19.68	19.70	20.17	20.74
12H	4H	16.55	17.22	17.03	17.70	18.17	18.51	19.18	18.99	19.66	20.13
	6H	17.37	17.93	17.89	18.44	18.93	18.93	19.49	19.45	20.00	20.49
	8H	17.76	18.25	18.27	18.75	19.31	19.14	19.63	19.65	20.12	20.69