

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



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060985

Luminaire Tested: S124RDRP-H795D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060985  
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: S124RDRP-H795D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

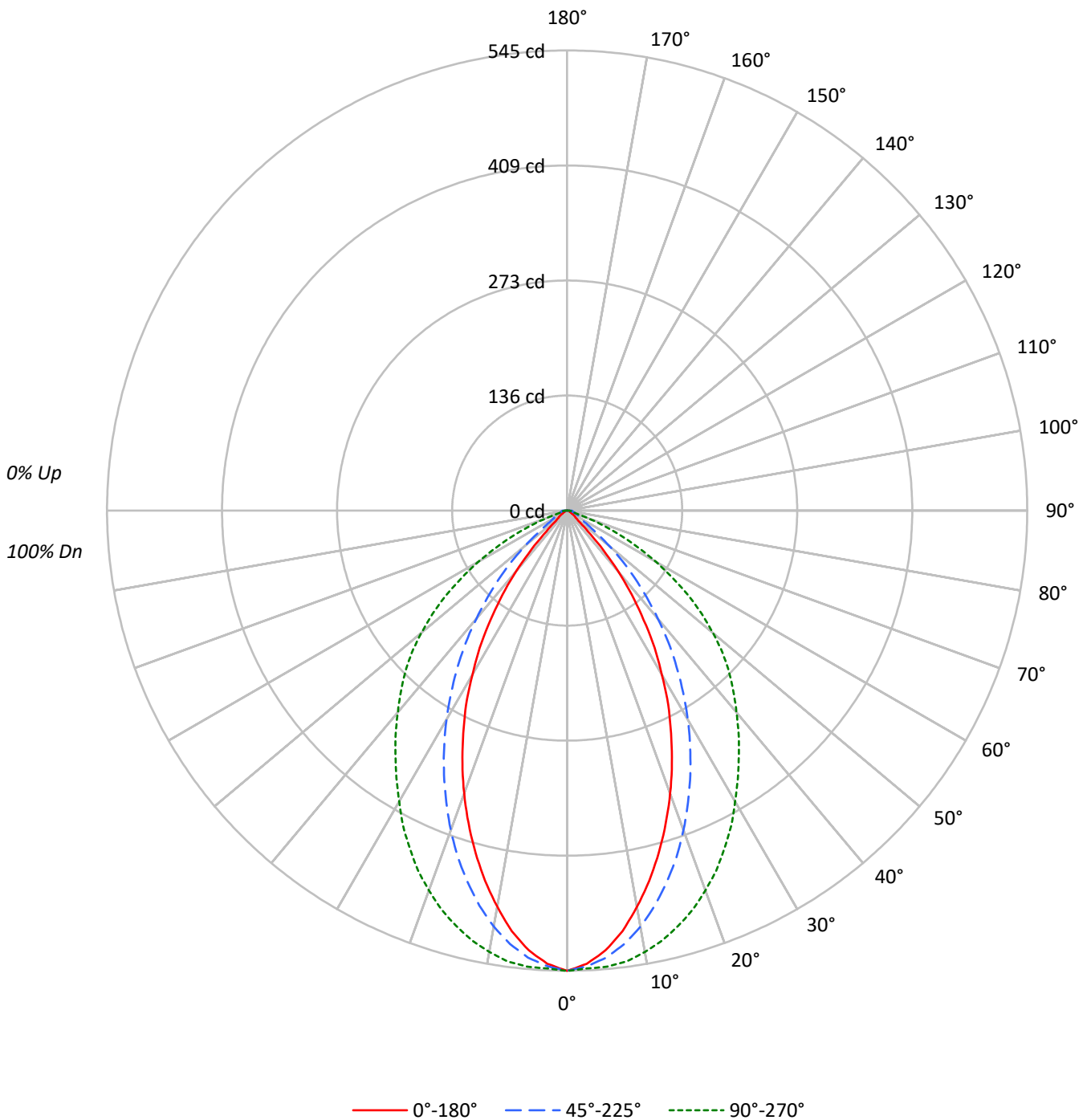
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 684.2 lumens  
Efficiency: N/A  
Efficacy: 29.1 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): 23.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65					65			
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59					59			
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54					54			
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46					46			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39					39			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4694	4694	4694
5°	4518	4593	4687
10°	4167	4375	4640
15°	3740	4062	4538
20°	3269	3692	4387
25°	2765	3279	4191
30°	2232	2843	3955
35°	1662	2376	3727
40°	1056	1883	3506
45°	423	1381	3306
50°	184	880	3018
55°	141	455	2633
60°	100	312	2089
65°	73	310	1426
70°	73	272	655
75°	96	289	263
80°	144	322	288
85°	287	573	425

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3306 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	7.3
10°-20°	128.7	18.8
20°-30°	162.6	23.8
30°-40°	149.3	21.8
40°-50°	101.8	14.9
50°-60°	55.2	8.1
60°-70°	23.4	3.4
70°-80°	8.1	1.2
80°-90°	5.2	0.8
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°	341.2	49.9
0°-40°	490.5	71.7
0°-60°	647.5	94.6
0°-90°	684.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	684.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	545	545	545	545	545	
5°	523	531	531	536	542	48
15°	420	433	456	488	509	117
25°	291	310	345	398	441	133
35°	158	179	226	297	354	98
45°	35	56	113	201	272	32
55°	9	10	30	110	175	8
65°	4	4	15	35	70	4
75°	3	8	9	8	8	3
85°	3	6	6	6	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	545.1	545.1	545.1	545.1	545.1
2.5°	537.2	543.7	540.1	541.5	542.9
5°	522.7	530.7	531.4	535.7	542.2
7.5°	502.5	511.9	517.7	528.5	538.6
10°	476.5	488.1	500.4	517.7	530.7
12.5°	449.1	461.4	479.4	504.0	521.3
15°	419.5	433.2	455.6	488.1	509.0
17.5°	388.4	403.6	430.3	468.6	495.3
20°	356.7	373.3	402.9	446.2	478.7
22.5°	324.2	341.5	374.0	423.1	461.4
25°	291.0	309.7	345.1	398.5	441.1
27.5°	259.2	276.5	315.5	374.0	420.9
30°	224.5	244.0	285.9	348.7	397.8
32.5°	192.8	211.5	255.6	322.7	376.2
35°	158.1	179.1	226.0	296.7	354.5
37.5°	125.6	145.8	197.1	272.2	333.6
40°	93.9	114.8	167.5	247.6	311.9
42.5°	62.8	85.2	139.3	222.4	291.7
45°	34.7	55.6	113.4	200.7	271.5
47.5°	18.1	30.3	88.8	179.1	249.8
50°	13.7	16.6	65.7	155.2	225.3
52.5°	11.6	12.3	44.8	131.4	200.7
55°	9.4	10.1	30.3	110.5	175.4
57.5°	7.2	7.9	21.7	90.3	147.3
60°	5.8	6.5	18.1	69.3	121.3
62.5°	4.3	5.1	17.3	51.3	95.3
65°	3.6	4.3	15.2	34.7	70.0
67.5°	2.9	4.3	13.0	22.4	46.9
70°	2.9	5.8	10.8	14.4	26.0
72.5°	2.9	6.5	9.4	9.4	9.4
75°	2.9	7.9	8.7	7.9	7.9
77.5°	2.9	7.2	7.2	7.2	7.2
80°	2.9	6.5	6.5	6.5	5.8
82.5°	2.9	5.8	6.5	6.5	5.1
85°	2.9	5.8	5.8	5.8	4.3
87.5°	2.2	5.8	5.8	5.8	2.9
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	13.82	15.09	14.18	15.41	15.72
	3H	0.00	0.00	0.00	0.00	0.00	14.17	15.30	14.55	15.63	16.00
	4H	0.00	0.00	0.00	0.10	0.48	14.14	15.19	14.54	15.54	15.92
	6H	0.07	1.04	0.49	1.41	1.80	14.11	15.08	14.53	15.45	15.84
	8H	0.76	1.67	1.19	2.06	2.47	14.10	15.01	14.53	15.40	15.81
	12H	1.57	2.44	2.00	2.82	3.25	14.10	14.97	14.53	15.35	15.78
4H	2H	0.00	0.56	0.00	0.91	1.30	13.62	14.67	14.02	15.02	15.40
	3H	0.93	1.79	1.35	2.20	2.60	14.01	14.87	14.43	15.27	15.68
	4H	2.38	3.14	2.81	3.56	4.00	13.99	14.76	14.43	15.18	15.62
	6H	3.62	4.28	4.09	4.73	5.20	14.01	14.67	14.48	15.12	15.59
	8H	4.20	4.81	4.67	5.26	5.73	14.02	14.64	14.49	15.08	15.56
	12H	4.88	5.42	5.37	5.91	6.38	14.06	14.60	14.55	15.08	15.56
8H	4H	3.45	4.07	3.92	4.51	4.99	13.89	14.51	14.36	14.96	15.43
	6H	5.07	5.57	5.57	6.07	6.55	13.94	14.45	14.45	14.94	15.43
	8H	5.91	6.36	6.43	6.87	7.37	14.00	14.45	14.52	14.97	15.46
	12H	6.88	7.28	7.40	7.77	8.35	14.12	14.52	14.63	15.01	15.59
12H	4H	3.64	4.18	4.13	4.67	5.14	13.86	14.40	14.34	14.88	15.36
	6H	5.41	5.87	5.94	6.38	6.87	13.91	14.36	14.43	14.88	15.37
	8H	6.44	6.84	6.96	7.34	7.91	14.02	14.42	14.53	14.91	15.48