

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: P1059788

Luminaire Tested: S123RDRP-H775D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059788  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-H775D935-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

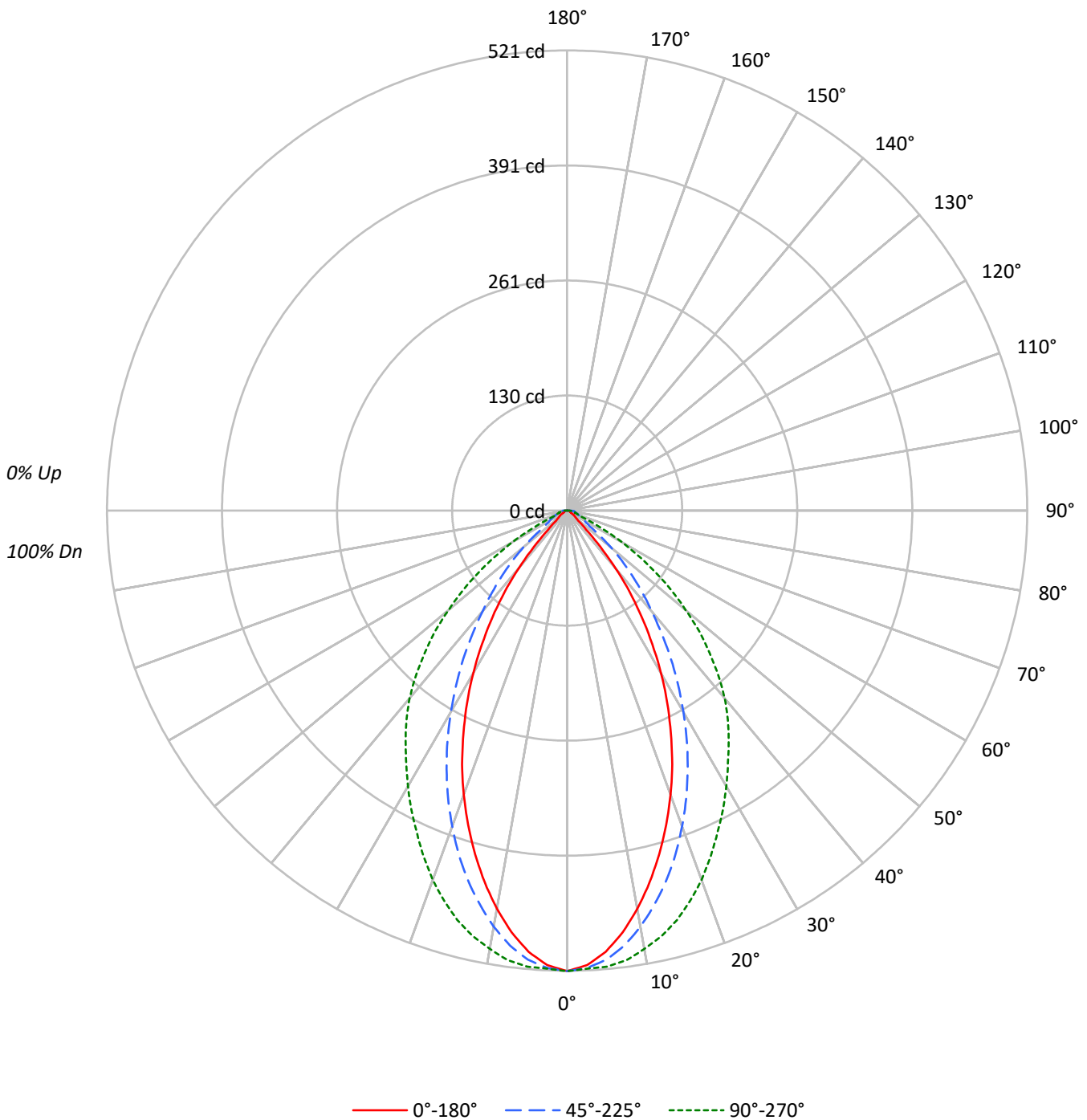
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 626.4 lumens  
Efficiency: N/A  
Efficacy: 26.7 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' 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	
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	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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	6123	6123	6123
5°	5911	6015	6109
10°	5457	5704	6008
15°	4894	5272	5835
20°	4274	4752	5559
25°	3595	4184	5216
30°	2887	3567	4887
35°	2114	2937	4571
40°	1308	2286	4254
45°	503	1722	3786
50°	248	1180	3204
55°	197	653	2514
60°	132	543	1686
65°	111	486	753
70°	110	439	439
75°	145	472	436
80°	216	595	487
85°	323	970	647

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3786 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.8	7.6
10°-20°	122.4	19.5
20°-30°	151.9	24.3
30°-40°	136.1	21.7
40°-50°	89.5	14.3
50°-60°	44.8	7.2
60°-70°	17.7	2.8
70°-80°	9.9	1.6
80°-90°	6.3	1.0
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°	322.1	51.4
0°-40°	458.2	73.1
0°-60°	592.5	94.6
0°-90°	626.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	626.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	502	510	510	514	518	46
15°	403	415	434	463	480	112
25°	278	295	323	368	403	127
35°	148	167	205	268	319	91
45°	30	50	104	175	228	29
55°	10	11	32	86	123	9
65°	4	11	18	22	27	4
75°	3	10	10	10	10	3
85°	2	7	7	7	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	521.4	521.4	521.4	521.4	521.4
2.5°	515.1	522.2	518.3	518.3	519.1
5°	501.5	509.5	510.3	513.5	518.3
7.5°	481.6	491.9	496.7	506.3	513.5
10°	457.7	468.8	478.4	495.1	503.9
12.5°	431.3	442.5	456.9	480.0	493.5
15°	402.6	415.4	433.7	463.2	480.0
17.5°	373.1	385.9	408.2	441.7	463.2
20°	342.0	356.4	380.3	418.6	444.9
22.5°	311.0	326.9	352.4	393.9	424.2
25°	277.5	295.0	322.9	368.4	402.6
27.5°	245.6	263.9	293.4	342.8	381.9
30°	212.9	231.2	263.1	316.5	360.4
32.5°	179.4	200.1	233.6	291.8	338.9
35°	147.5	167.4	204.9	267.9	318.9
37.5°	116.4	136.3	175.4	244.8	299.0
40°	85.3	106.0	149.1	222.5	277.5
42.5°	55.8	77.3	126.0	200.1	253.5
45°	30.3	50.2	103.7	174.6	228.0
47.5°	16.7	27.1	83.7	150.7	203.3
50°	13.6	15.1	64.6	128.4	175.4
52.5°	11.2	12.8	46.2	106.8	149.9
55°	9.6	11.2	31.9	86.1	122.8
57.5°	8.0	9.6	25.5	66.2	96.5
60°	5.6	9.6	23.1	48.6	71.8
62.5°	4.8	9.6	19.9	33.5	47.8
65°	4.0	11.2	17.5	22.3	27.1
67.5°	3.2	11.2	15.1	14.4	14.4
70°	3.2	11.2	12.8	12.0	12.8
72.5°	3.2	12.0	12.0	11.2	11.2
75°	3.2	10.4	10.4	9.6	9.6
77.5°	3.2	9.6	9.6	8.8	8.8
80°	3.2	8.8	8.8	8.0	7.2
82.5°	3.2	8.0	8.0	7.2	6.4
85°	2.4	7.2	7.2	7.2	4.8
87.5°	2.4	6.4	7.2	6.4	4.0
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	0.03	0.00	0.35	0.66	12.84	14.10	13.21	14.41	14.73
	3H	1.30	2.41	1.68	2.74	3.11	12.92	14.04	13.30	14.37	14.73
	4H	2.47	3.50	2.87	3.85	4.24	12.99	14.02	13.39	14.37	14.76
	6H	3.52	4.47	3.93	4.84	5.23	13.09	14.04	13.50	14.41	14.80
	8H	4.06	4.96	4.49	5.35	5.75	13.15	14.05	13.58	14.44	14.84
	12H	4.54	5.40	4.97	5.78	6.21	13.22	14.08	13.65	14.46	14.89
4H	2H	2.01	3.05	2.42	3.40	3.78	12.70	13.74	13.11	14.09	14.47
	3H	4.49	5.33	4.90	5.74	6.14	12.88	13.73	13.29	14.13	14.53
	4H	5.84	6.59	6.27	7.01	7.46	13.01	13.77	13.44	14.19	14.63
	6H	6.97	7.63	7.44	8.07	8.54	13.23	13.88	13.69	14.33	14.79
	8H	7.48	8.09	7.95	8.54	9.01	13.35	13.96	13.82	14.41	14.88
	12H	7.94	8.48	8.43	8.96	9.44	13.51	14.05	14.00	14.54	15.01
8H	4H	6.76	7.37	7.23	7.82	8.29	13.01	13.62	13.48	14.07	14.54
	6H	8.36	8.86	8.86	9.36	9.84	13.34	13.85	13.85	14.34	14.82
	8H	9.19	9.64	9.71	10.15	10.65	13.57	14.03	14.10	14.54	15.03
	12H	9.97	10.36	10.48	10.86	11.43	13.90	14.30	14.42	14.80	15.37
12H	4H	6.92	7.46	7.41	7.95	8.42	13.00	13.54	13.49	14.03	14.50
	6H	8.67	9.13	9.20	9.64	10.13	13.38	13.83	13.90	14.34	14.84
	8H	9.68	10.08	10.20	10.58	11.15	13.69	14.09	14.20	14.58	15.15