

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: P1059223

Luminaire Tested: S123RDRP-S340D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059223  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D935-X4F0-XX-UDD-SVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

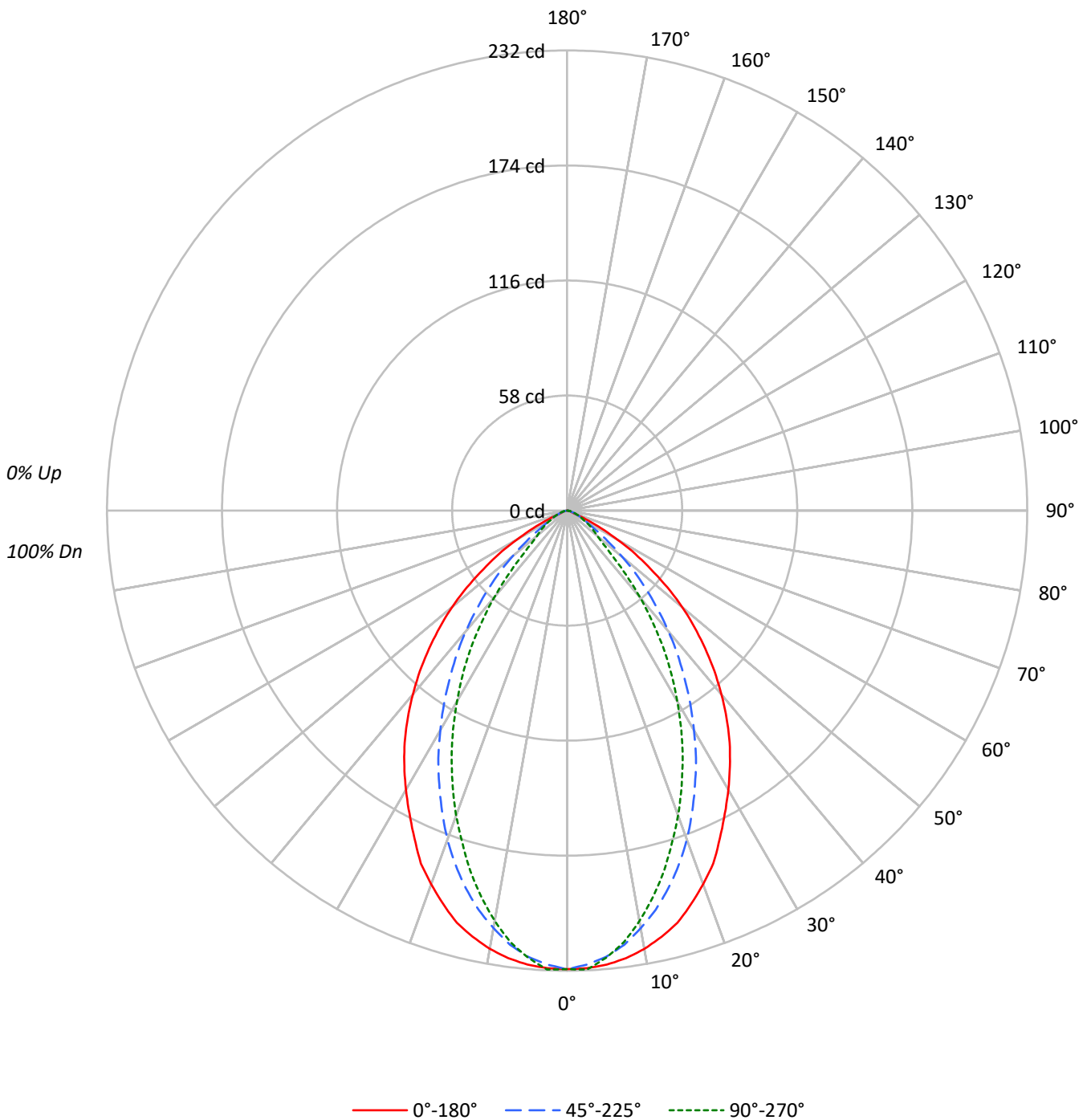
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 298.5 lumens  
Efficiency: N/A  
Efficacy: 23.9 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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	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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91																												
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82																												
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73																												
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66																												
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55																												
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50																												
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46																												
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42																												
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39																												

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

	0°	45°	90°
0°	2715	2715	2715
5°	2709	2662	2666
10°	2676	2548	2505
15°	2615	2397	2289
20°	2504	2206	2044
25°	2361	1976	1785
30°	2203	1733	1505
35°	2047	1478	1211
40°	1855	1219	878
45°	1634	945	530
50°	1387	661	360
55°	1054	395	301
60°	688	251	235
65°	289	189	189
70°	100	134	148
75°	82	95	113
80°	47	74	95
85°	54	54	94

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1634 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.4	7.2
10°-20°	55.9	18.7
20°-30°	71.7	24.0
30°-40°	67.3	22.5
40°-50°	46.9	15.7
50°-60°	24.3	8.1
60°-70°	8.3	2.8
70°-80°	2.4	0.8
80°-90°	0.5	0.2
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°	148.9	49.9
0°-40°	216.2	72.4
0°-60°	287.3	96.3
0°-90°	298.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	298.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	231	231	231	231	231	
5°	230	229	226	227	226	22
15°	215	210	197	191	188	60
25°	182	171	152	142	138	84
35°	143	125	103	90	84	89
45°	98	80	57	39	32	76
55°	52	39	19	15	15	46
65°	10	9	7	6	7	12
75°	2	2	2	2	2	2
85°	0	0	0	0	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	231.2	231.2	231.2	231.2	231.2
2.5°	230.9	231.2	229.1	231.2	231.6
5°	229.8	229.4	225.8	226.9	226.2
7.5°	227.6	226.6	220.8	219.4	219.4
10°	224.4	222.3	213.7	211.2	210.1
12.5°	220.1	217.3	206.2	201.5	199.7
15°	215.1	209.7	197.2	190.8	188.3
17.5°	208.0	200.8	187.2	179.7	175.7
20°	200.4	191.5	176.5	167.5	163.6
22.5°	192.6	181.8	164.6	155.0	150.7
25°	182.2	170.7	152.5	142.1	137.8
27.5°	172.2	160.0	140.7	128.9	124.6
30°	162.5	148.2	127.8	116.3	111.0
32.5°	152.8	136.7	115.6	103.1	98.1
35°	142.8	125.3	103.1	89.8	84.5
37.5°	132.1	114.2	91.3	77.0	70.5
40°	121.0	102.4	79.5	63.4	57.3
42.5°	109.9	91.6	67.6	51.2	44.0
45°	98.4	80.5	56.9	39.4	31.9
47.5°	87.0	69.4	46.5	28.6	24.0
50°	75.9	59.1	36.2	21.1	19.7
52.5°	63.7	49.0	27.2	17.5	17.2
55°	51.5	38.7	19.3	15.0	14.7
57.5°	40.8	30.1	14.0	12.5	12.2
60°	29.3	21.5	10.7	10.4	10.0
62.5°	19.3	14.7	8.6	8.2	8.2
65°	10.4	8.9	6.8	6.4	6.8
67.5°	4.3	5.0	5.0	5.4	5.4
70°	2.9	3.2	3.9	4.3	4.3
72.5°	2.1	2.5	2.9	3.2	3.2
75°	1.8	1.8	2.1	2.5	2.5
77.5°	1.1	1.4	1.4	1.8	2.1
80°	0.7	1.1	1.1	1.4	1.4
82.5°	0.4	0.7	0.7	1.1	1.1
85°	0.4	0.4	0.4	0.4	0.7
87.5°	0.0	0.0	0.0	0.0	0.4
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	9.81	11.07	10.17	11.38	11.70	3.30	4.56	3.67	4.87	5.19
	3H	9.76	10.87	10.14	11.20	11.57	4.08	5.19	4.46	5.52	5.89
	4H	9.71	10.74	10.11	11.09	11.47	4.28	5.31	4.69	5.66	6.05
	6H	9.64	10.58	10.05	10.95	11.35	4.42	5.36	4.84	5.73	6.13
	8H	9.60	10.49	10.03	10.88	11.28	4.46	5.35	4.89	5.74	6.15
	12H	9.55	10.41	9.99	10.79	11.22	4.48	5.33	4.91	5.71	6.14
4H	2H	9.65	10.68	10.06	11.04	11.42	3.56	4.59	3.96	4.94	5.32
	3H	9.64	10.47	10.05	10.88	11.28	4.47	5.31	4.89	5.71	6.12
	4H	9.59	10.33	10.02	10.75	11.20	4.74	5.49	5.18	5.91	6.35
	6H	9.53	10.17	10.00	10.62	11.08	4.95	5.59	5.42	6.04	6.50
	8H	9.48	10.07	9.95	10.52	10.99	5.01	5.61	5.49	6.06	6.53
	12H	9.43	9.96	9.92	10.44	10.92	5.05	5.58	5.54	6.06	6.54
8H	4H	9.47	10.07	9.95	10.52	10.99	4.72	5.32	5.20	5.77	6.24
	6H	9.41	9.90	9.92	10.39	10.88	4.98	5.47	5.49	5.97	6.45
	8H	9.36	9.80	9.89	10.31	10.81	5.10	5.53	5.62	6.05	6.54
	12H	9.33	9.71	9.84	10.21	10.78	5.18	5.56	5.69	6.06	6.63
12H	4H	9.43	9.95	9.92	10.44	10.91	4.69	5.21	5.17	5.69	6.17
	6H	9.35	9.79	9.88	10.31	10.80	4.95	5.38	5.47	5.90	6.39
	8H	9.32	9.71	9.84	10.20	10.78	5.09	5.48	5.61	5.97	6.54