

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: P1059220

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059220  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D935-X4F0-XX-UDD-BVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

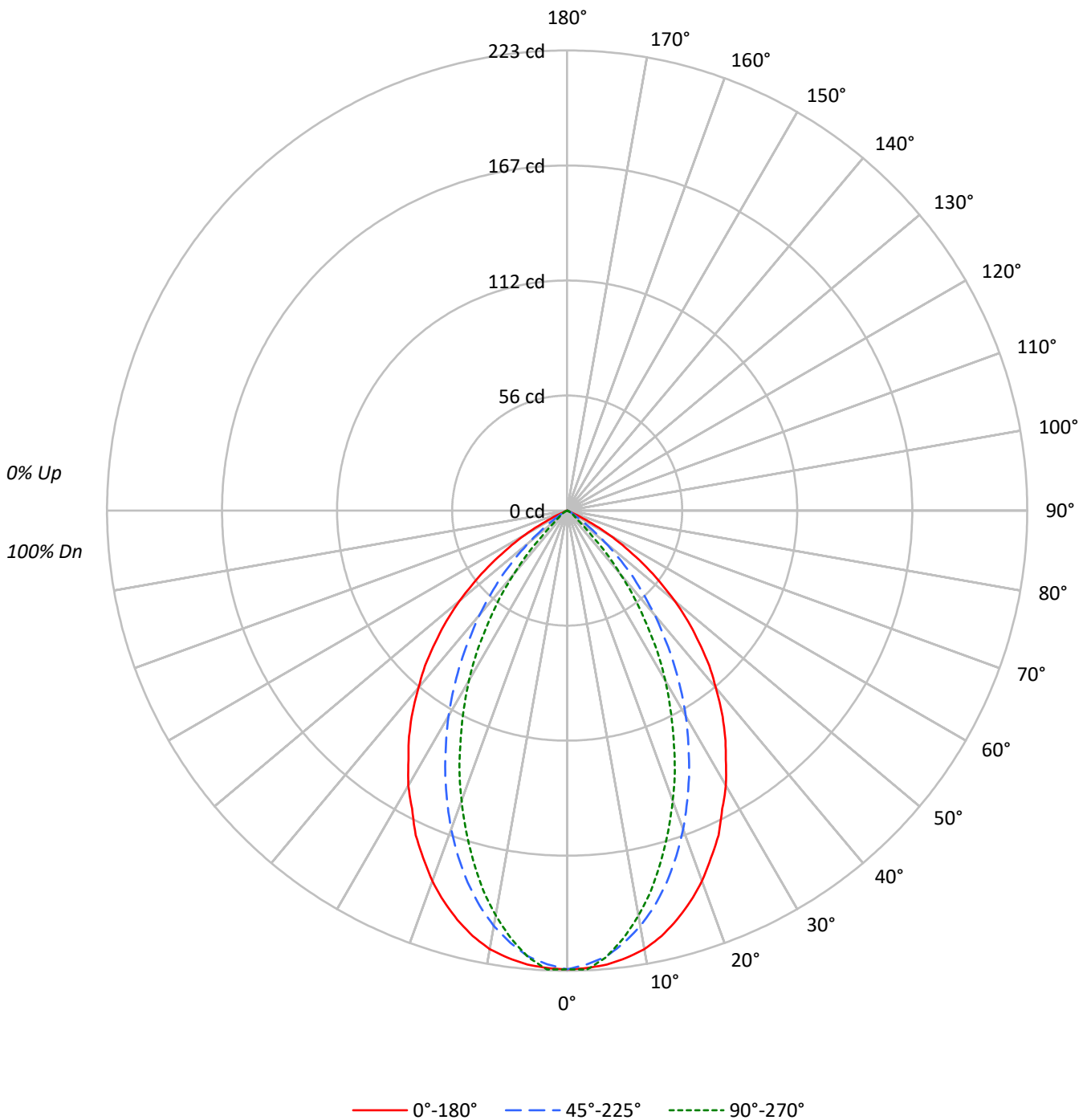
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 253.6 lumens  
Efficiency: N/A  
Efficacy: 20.3 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

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

	0°	45°	90°
0°	2610	2610	2610
5°	2603	2557	2560
10°	2573	2437	2376
15°	2497	2267	2136
20°	2388	2053	1869
25°	2249	1813	1581
30°	2087	1558	1291
35°	1914	1287	959
40°	1717	1010	615
45°	1498	737	256
50°	1242	438	99
55°	915	182	74
60°	554	68	42
65°	150	39	19
70°	0	14	14
75°	0	0	18
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1498 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.5	8.1
10°-20°	52.8	20.8
20°-30°	65.8	25.9
30°-40°	58.8	23.2
40°-50°	37.1	14.6
50°-60°	15.5	6.1
60°-70°	2.9	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	139.1	54.8
0°-40°	197.9	78.0
0°-60°	250.6	98.8
0°-90°	253.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	253.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	222	222	222	222	222	
5°	221	220	217	218	217	21
15°	205	200	186	179	176	58
25°	174	160	140	128	122	79
35°	134	114	90	74	67	83
45°	90	70	44	24	15	70
55°	45	31	9	4	4	40
65°	5	4	1	1	1	8
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	222.3	222.3	222.3	222.3	222.3
2.5°	221.9	222.3	220.1	222.3	222.6
5°	220.8	220.5	216.9	217.6	217.2
7.5°	218.7	217.6	211.2	209.7	209.0
10°	215.8	212.9	204.4	200.8	199.3
12.5°	211.2	207.2	196.1	190.4	188.3
15°	205.4	200.4	186.5	178.6	175.7
17.5°	198.6	191.5	175.7	167.1	162.8
20°	191.1	181.1	164.3	153.9	149.6
22.5°	182.2	171.1	152.1	141.0	136.4
25°	173.6	159.6	139.9	127.8	122.0
27.5°	162.8	148.2	127.1	114.5	108.4
30°	153.9	137.1	114.9	100.9	95.2
32.5°	143.2	125.6	102.4	87.0	81.6
35°	133.5	114.2	89.8	73.7	66.9
37.5°	123.1	103.1	77.3	60.5	54.0
40°	112.0	92.0	65.9	47.2	40.1
42.5°	102.0	80.9	54.4	35.1	27.9
45°	90.2	70.1	44.4	23.6	15.4
47.5°	79.5	60.1	33.6	13.2	8.2
50°	68.0	49.7	24.0	6.8	5.4
52.5°	56.2	39.7	15.7	4.7	4.3
55°	44.7	30.8	8.9	3.6	3.6
57.5°	33.6	22.2	4.7	2.9	2.5
60°	23.6	14.7	2.9	2.1	1.8
62.5°	13.6	8.6	2.1	1.4	1.4
65°	5.4	3.9	1.4	0.7	0.7
67.5°	0.4	1.1	0.7	0.4	0.4
70°	0.0	0.0	0.4	0.4	0.4
72.5°	0.0	0.0	0.4	0.4	0.4
75°	0.0	0.0	0.0	0.0	0.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	8.52	9.70	8.89	10.01	10.33	0.00	0.00	0.00	0.00	0.00
	3H	8.36	9.40	8.75	9.73	10.09	0.00	0.00	0.00	0.00	0.00
	4H	8.28	9.23	8.68	9.58	9.97	0.00	0.00	0.00	0.00	0.00
	6H	8.19	9.06	8.60	9.43	9.83	0.00	0.00	0.00	0.00	0.00
	8H	8.14	8.96	8.57	9.35	9.76	0.00	0.00	0.00	0.00	0.00
	12H	8.09	8.87	8.52	9.25	9.68	0.00	0.00	0.00	0.00	0.00
4H	2H	8.28	9.24	8.69	9.59	9.98	0.00	0.00	0.00	0.00	0.00
	3H	8.12	8.89	8.53	9.29	9.70	0.00	0.00	0.00	0.00	0.00
	4H	8.01	8.70	8.45	9.12	9.56	0.00	0.00	0.00	0.00	0.00
	6H	7.92	8.50	8.38	8.95	9.42	0.00	0.00	0.00	0.00	0.00
	8H	7.85	8.40	8.32	8.85	9.32	0.00	0.00	0.00	0.00	0.00
	12H	7.79	8.27	8.28	8.76	9.23	0.00	0.00	0.00	0.00	0.00
8H	4H	7.85	8.40	8.33	8.85	9.32	0.00	0.00	0.00	0.00	0.00
	6H	7.74	8.18	8.24	8.68	9.16	0.00	0.00	0.00	0.00	0.00
	8H	7.66	8.06	8.19	8.58	9.07	0.00	0.00	0.00	0.00	0.00
	12H	7.61	7.96	8.13	8.46	9.03	0.00	0.00	0.00	0.00	0.00
12H	4H	7.79	8.27	8.28	8.76	9.23	0.00	0.00	0.00	0.00	0.00
	6H	7.66	8.06	8.19	8.58	9.07	0.00	0.00	0.00	0.00	0.00
	8H	7.61	7.96	8.13	8.46	9.03	0.00	0.00	0.00	0.00	0.00