

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: P1059217

Luminaire Tested: S123RDRP-S340D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059217  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D930-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

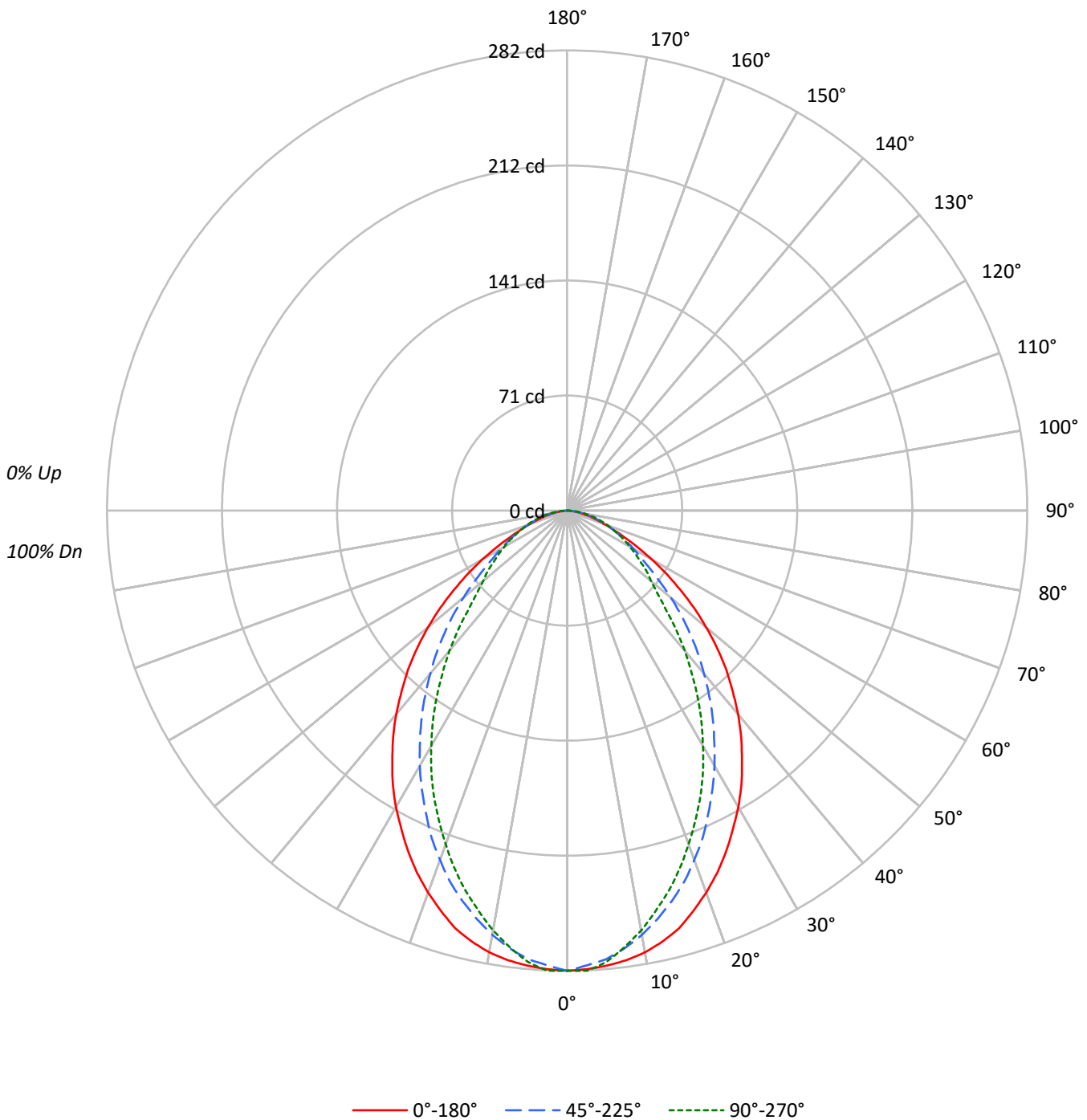
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 493.2 lumens  
Efficiency: N/A  
Efficacy: 39.5 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88																												
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																												
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66																												
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																												
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																												
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																												
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																												
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																												
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																												
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																												

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

	0°	45°	90°
0°	3311	3311	3311
5°	3299	3252	3272
10°	3278	3148	3116
15°	3222	3011	2930
20°	3113	2847	2719
25°	2986	2652	2503
30°	2845	2449	2256
35°	2676	2231	1997
40°	2499	2000	1720
45°	2290	1767	1413
50°	2031	1516	1226
55°	1728	1269	1124
60°	1409	1106	1043
65°	1072	978	970
70°	838	872	906
75°	676	785	844
80°	507	642	778
85°	269	418	687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2290 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.2	5.3
10°-20°	70.4	14.3
20°-30°	95.7	19.4
30°-40°	99.2	20.1
40°-50°	83.7	17.0
50°-60°	59.4	12.0
60°-70°	36.3	7.4
70°-80°	18.1	3.7
80°-90°	4.1	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°	192.3	39.0
0°-40°	291.6	59.1
0°-60°	434.7	88.1
0°-90°	493.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	493.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	282	282	282	282	282	
5°	280	280	276	278	278	27
15°	265	260	248	243	241	74
25°	230	220	205	197	193	106
35°	187	172	156	145	139	117
45°	138	123	106	92	85	106
55°	84	76	62	57	55	76
65°	39	37	35	35	35	39
75°	15	16	17	18	19	16
85°	2	2	3	4	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	282.0	282.0	282.0	282.0	282.0
2.5°	281.3	281.6	278.9	282.0	282.3
5°	279.9	279.9	275.9	277.6	277.6
7.5°	277.9	277.2	270.5	270.5	269.8
10°	274.9	272.8	264.0	262.3	261.3
12.5°	270.5	267.1	256.2	253.2	251.1
15°	265.0	260.0	247.7	243.3	241.0
17.5°	257.2	252.2	238.6	232.5	229.8
20°	249.1	241.6	227.8	221.7	217.6
22.5°	240.3	230.8	217.2	209.8	205.4
25°	230.5	220.3	204.7	197.3	193.2
27.5°	220.0	208.8	192.8	184.4	180.3
30°	209.8	196.9	180.6	171.2	166.4
32.5°	198.9	184.4	167.8	157.9	153.2
35°	186.7	172.5	155.6	144.7	139.3
37.5°	175.2	160.6	143.0	131.5	125.4
40°	163.0	148.4	130.5	118.6	112.2
42.5°	150.1	136.2	118.6	104.7	98.6
45°	137.9	123.4	106.4	91.8	85.1
47.5°	124.7	111.2	94.6	79.6	74.9
50°	111.2	98.6	83.0	69.5	67.1
52.5°	97.9	87.4	71.5	62.7	61.7
55°	84.4	75.6	62.0	56.6	54.9
57.5°	71.9	65.4	53.2	50.5	49.8
60°	60.0	54.6	47.1	45.4	44.4
62.5°	48.5	45.4	41.0	40.3	39.7
65°	38.6	37.3	35.2	35.2	34.9
67.5°	30.5	30.5	30.2	30.8	30.5
70°	24.4	24.7	25.4	26.1	26.4
72.5°	19.3	20.3	21.0	22.0	22.4
75°	14.9	15.9	17.3	18.0	18.6
77.5°	10.8	11.9	13.2	14.2	14.9
80°	7.5	8.1	9.5	10.8	11.5
82.5°	4.7	5.1	6.1	7.5	8.1
85°	2.0	2.4	3.1	4.4	5.1
87.5°	0.0	0.0	0.3	1.4	2.4
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	12.97	14.42	13.33	14.73	15.05	11.07	12.52	11.43	12.83	13.14
	3H	13.87	15.16	14.24	15.49	15.85	12.64	13.93	13.02	14.26	14.62
	4H	14.15	15.36	14.55	15.71	16.09	13.23	14.44	13.63	14.79	15.17
	6H	14.30	15.41	14.71	15.78	16.18	13.68	14.80	14.09	15.17	15.56
	8H	14.32	15.38	14.75	15.77	16.17	13.83	14.89	14.26	15.28	15.69
	12H	14.31	15.33	14.74	15.71	16.14	13.93	14.95	14.36	15.33	15.76
4H	2H	13.21	14.42	13.61	14.77	15.15	11.61	12.82	12.01	13.17	13.55
	3H	14.32	15.33	14.74	15.73	16.13	13.38	14.38	13.79	14.78	15.18
	4H	14.71	15.61	15.15	16.03	16.47	14.09	14.99	14.52	15.41	15.85
	6H	14.96	15.73	15.41	16.18	16.64	14.66	15.44	15.12	15.88	16.35
	8H	15.00	15.73	15.46	16.17	16.64	14.85	15.58	15.32	16.02	16.49
	12H	15.01	15.65	15.49	16.13	16.61	14.99	15.64	15.47	16.12	16.59
8H	4H	14.87	15.60	15.34	16.04	16.51	14.30	15.03	14.77	15.47	15.94
	6H	15.18	15.78	15.68	16.28	16.75	14.97	15.57	15.47	16.07	16.54
	8H	15.26	15.80	15.78	16.31	16.80	15.23	15.77	15.75	16.28	16.77
	12H	15.29	15.77	15.81	16.26	16.83	15.44	15.91	15.95	16.41	16.97
12H	4H	14.88	15.52	15.36	16.00	16.48	14.30	14.95	14.78	15.43	15.90
	6H	15.20	15.74	15.72	16.25	16.74	14.98	15.52	15.50	16.03	16.52
	8H	15.31	15.79	15.82	16.28	16.85	15.29	15.76	15.80	16.25	16.82