

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: P1059222

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059222  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
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-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

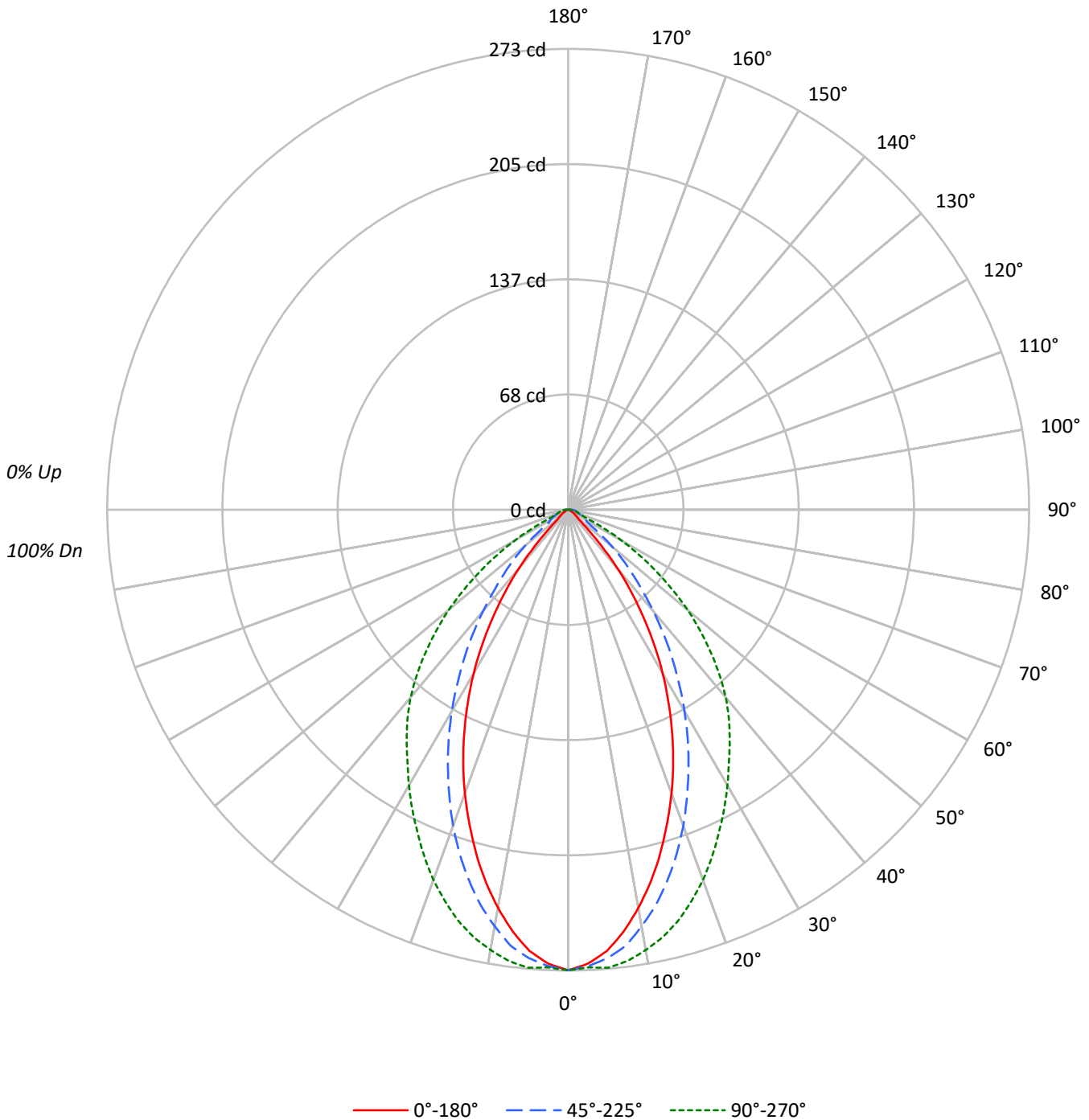
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 327.5 lumens  
Efficiency: N/A  
Efficacy: 26.2 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): 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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	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	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
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	42	40

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

	0°	45°	90°
0°	3203	3203	3203
5°	3093	3144	3211
10°	2856	2988	3159
15°	2563	2763	3063
20°	2236	2490	2917
25°	1885	2183	2735
30°	1516	1867	2557
35°	1110	1537	2390
40°	693	1197	2226
45°	262	893	1983
50°	124	616	1690
55°	96	338	1306
60°	68	287	860
65°	50	250	358
70°	48	233	233
75°	64	245	245
80°	95	291	264
85°	189	485	391

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1983 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.0	7.6
10°-20°	64.2	19.6
20°-30°	79.5	24.3
30°-40°	71.3	21.8
40°-50°	46.7	14.3
50°-60°	23.4	7.1
60°-70°	9.1	2.8
70°-80°	5.1	1.6
80°-90°	3.2	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°	168.7	51.5
0°-40°	240.0	73.3
0°-60°	310.1	94.7
0°-90°	327.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	327.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	273	273	273	273	273	
5°	262	267	267	270	272	24
15°	211	219	227	242	252	59
25°	146	154	168	192	211	66
35°	77	88	107	139	167	48
45°	16	26	54	92	119	15
55°	5	6	16	45	64	4
65°	2	5	9	12	13	2
75°	1	5	5	5	5	1
85°	1	4	4	4	3	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	272.8	272.8	272.8	272.8	272.8
2.5°	269.2	273.2	270.6	271.0	271.4
5°	262.4	266.7	266.7	269.6	272.4
7.5°	252.0	257.0	260.6	265.6	269.6
10°	239.5	245.6	250.6	259.5	264.9
12.5°	225.8	233.4	239.8	251.6	259.2
15°	210.8	219.4	227.3	242.3	252.0
17.5°	194.7	203.3	213.7	231.2	243.0
20°	178.9	187.5	199.3	219.0	233.4
22.5°	162.4	171.4	183.9	205.8	222.6
25°	145.5	154.5	168.5	192.5	211.1
27.5°	128.7	137.7	153.4	179.6	200.0
30°	111.8	120.8	137.7	165.6	188.6
32.5°	95.0	104.7	122.2	152.7	177.1
35°	77.4	87.8	107.2	139.4	166.7
37.5°	61.3	71.0	92.8	128.0	156.3
40°	45.2	55.6	78.1	116.9	145.2
42.5°	29.4	40.5	64.9	104.7	132.6
45°	15.8	25.5	53.8	92.1	119.4
47.5°	8.6	14.0	43.4	78.9	105.7
50°	6.8	7.9	33.7	67.4	92.5
52.5°	5.7	6.5	24.0	56.6	77.8
55°	4.7	5.7	16.5	45.2	63.8
57.5°	3.9	5.0	12.9	35.1	49.8
60°	2.9	4.3	12.2	25.8	36.6
62.5°	2.2	4.7	10.8	17.9	24.0
65°	1.8	5.4	9.0	11.8	12.9
67.5°	1.4	5.7	7.9	7.5	7.5
70°	1.4	5.4	6.8	6.5	6.8
72.5°	1.4	5.7	6.1	5.7	6.1
75°	1.4	5.4	5.4	5.4	5.4
77.5°	1.4	5.0	5.0	4.7	4.7
80°	1.4	4.3	4.3	4.3	3.9
82.5°	1.4	3.9	3.9	3.9	3.2
85°	1.4	3.6	3.6	3.6	2.9
87.5°	1.1	3.2	3.6	3.2	2.2
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	10.64	11.90	11.01	12.21	12.53
	3H	0.00	0.00	0.00	0.14	0.50	10.72	11.84	11.10	12.17	12.53
	4H	0.00	0.83	0.20	1.18	1.57	10.80	11.84	11.21	12.19	12.57
	6H	0.77	1.72	1.19	2.10	2.49	10.91	11.86	11.32	12.23	12.62
	8H	1.25	2.14	1.68	2.54	2.94	10.96	11.86	11.40	12.25	12.66
	12H	1.80	2.65	2.23	3.04	3.47	11.05	11.90	11.48	12.29	12.72
4H	2H	0.00	0.69	0.06	1.04	1.43	10.50	11.53	10.90	11.88	12.27
	3H	1.96	2.81	2.38	3.21	3.62	10.68	11.52	11.09	11.93	12.33
	4H	3.34	4.09	3.77	4.51	4.96	10.83	11.58	11.26	12.00	12.45
	6H	4.41	5.06	4.88	5.51	5.98	11.06	11.71	11.52	12.15	12.62
	8H	4.86	5.47	5.33	5.92	6.39	11.18	11.79	11.65	12.23	12.71
	12H	5.34	5.88	5.83	6.36	6.84	11.35	11.89	11.84	12.37	12.85
8H	4H	4.31	4.92	4.78	5.37	5.84	10.83	11.44	11.30	11.88	12.36
	6H	5.82	6.32	6.33	6.82	7.30	11.16	11.66	11.67	12.16	12.64
	8H	6.58	7.03	7.11	7.55	8.04	11.39	11.84	11.92	12.36	12.85
	12H	7.38	7.78	7.90	8.28	8.85	11.73	12.13	12.24	12.62	13.19
12H	4H	4.49	5.03	4.98	5.51	5.99	10.81	11.35	11.30	11.83	12.31
	6H	6.14	6.58	6.66	7.10	7.59	11.18	11.63	11.71	12.15	12.64
	8H	7.08	7.48	7.59	7.97	8.54	11.49	11.89	12.00	12.38	12.95