

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: P1059207

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059207  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

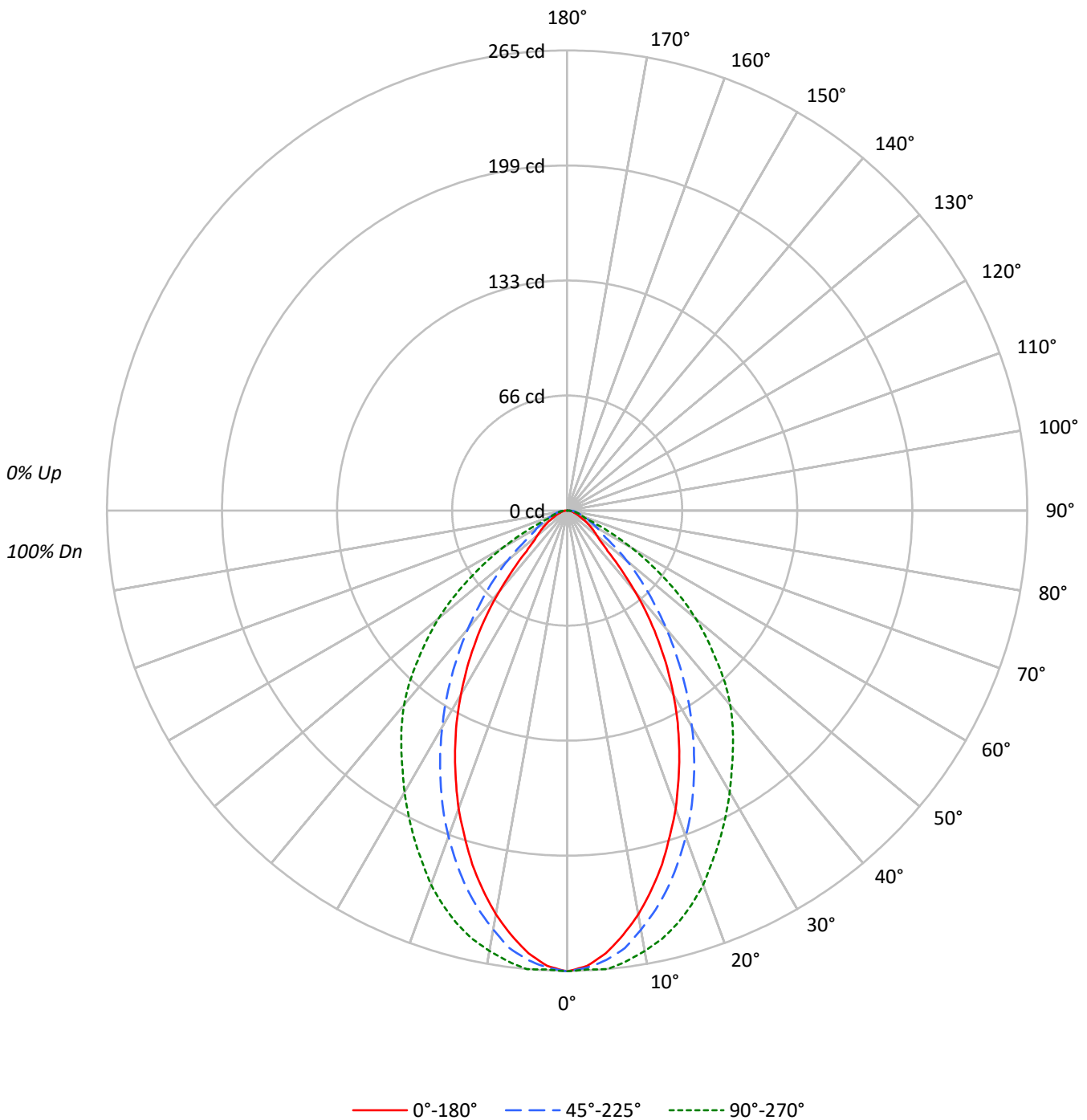
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 356.3 lumens  
Efficiency: N/A  
Efficacy: 28.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 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 (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	111	108	105	102	109	106	103	100	102	99	97		98	96	94		94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85		89	86	83		86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75		82	78	74		79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67		75	70	66		73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60		69	64	60		68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55		64	59	54		63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50		60	54	50		58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46		55	50	46		54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42		52	46	42		51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39		49	43	39		48	43	39	37

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

	0°	45°	90°
0°	3116	3116	3116
5°	3016	3062	3125
10°	2815	2921	3070
15°	2565	2730	2991
20°	2283	2497	2864
25°	1978	2235	2700
30°	1658	1950	2540
35°	1315	1659	2387
40°	930	1364	2240
45°	548	1079	2014
50°	409	818	1765
55°	344	553	1417
60°	279	472	1008
65°	220	403	531
70°	192	350	330
75°	181	331	313
80°	176	358	311
85°	216	539	404

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2014 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.4	6.9
10°-20°	63.5	17.8
20°-30°	80.9	22.7
30°-40°	76.1	21.3
40°-50°	54.8	15.4
50°-60°	31.6	8.9
60°-70°	14.5	4.1
70°-80°	7.2	2.0
80°-90°	3.4	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°	168.8	47.4
0°-40°	244.8	68.7
0°-60°	331.2	93.0
0°-90°	356.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	356.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	265	265	265	265	265	
5°	256	260	260	262	265	24
15°	211	219	225	237	246	59
25°	153	161	172	192	208	70
35°	92	100	116	142	166	57
45°	33	41	65	98	121	28
55°	17	18	27	51	69	15
65°	8	11	14	16	19	8
75°	4	8	7	7	7	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	265.4	265.4	265.4	265.4	265.4
2.5°	262.5	265.8	263.5	263.8	264.5
5°	255.9	260.2	259.8	262.5	265.1
7.5°	246.6	251.6	254.2	258.2	261.8
10°	236.1	241.7	245.0	252.3	257.5
12.5°	223.9	231.2	235.4	245.0	252.6
15°	211.0	218.6	224.6	237.1	246.0
17.5°	196.5	204.8	212.4	227.2	238.1
20°	182.7	190.6	199.8	216.0	229.2
22.5°	167.5	176.1	186.6	203.8	218.6
25°	152.7	160.6	172.5	191.6	208.4
27.5°	137.8	145.7	158.3	179.4	197.8
30°	122.3	130.6	143.8	167.2	187.3
32.5°	107.2	115.1	129.9	155.3	176.4
35°	91.7	99.6	115.7	142.4	166.5
37.5°	76.5	84.7	101.9	131.9	156.6
40°	60.7	69.6	89.0	121.0	146.1
42.5°	45.8	55.4	76.2	109.8	134.5
45°	33.0	41.2	65.0	97.6	121.3
47.5°	25.7	30.0	54.7	85.1	109.1
50°	22.4	23.1	44.8	73.5	96.6
52.5°	19.5	20.1	35.3	62.7	83.4
55°	16.8	17.5	27.0	51.4	69.2
57.5°	14.2	15.2	22.4	40.9	55.7
60°	11.9	13.2	20.1	31.3	42.9
62.5°	9.6	11.9	17.1	23.1	30.7
65°	7.9	11.2	14.5	16.2	19.1
67.5°	6.6	10.2	12.2	11.5	11.2
70°	5.6	9.2	10.2	9.2	9.6
72.5°	4.6	8.6	8.6	7.9	7.9
75°	4.0	7.6	7.3	6.9	6.9
77.5°	3.3	6.6	6.3	5.9	5.6
80°	2.6	5.3	5.3	4.9	4.6
82.5°	2.3	4.3	4.3	4.3	3.6
85°	1.6	3.6	4.0	3.6	3.0
87.5°	1.3	3.3	3.3	3.0	2.0
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	3.93	5.25	4.30	5.57	5.88	11.28	12.60	11.65	12.92	13.23
	3H	5.31	6.48	5.69	6.81	7.18	11.51	12.68	11.89	13.01	13.38
	4H	5.87	6.96	6.27	7.31	7.70	11.63	12.72	12.03	13.07	13.45
	6H	6.30	7.30	6.72	7.67	8.07	11.74	12.74	12.15	13.11	13.51
	8H	6.48	7.43	6.91	7.82	8.22	11.79	12.74	12.22	13.13	13.54
	12H	6.63	7.53	7.06	7.92	8.35	11.85	12.76	12.28	13.14	13.57
4H	2H	5.03	6.12	5.43	6.47	6.85	11.24	12.33	11.64	12.68	13.07
	3H	6.68	7.58	7.10	7.98	8.38	11.60	12.49	12.01	12.90	13.30
	4H	7.50	8.30	7.93	8.72	9.16	11.80	12.59	12.23	13.01	13.46
	6H	8.13	8.82	8.60	9.27	9.74	12.02	12.71	12.48	13.16	13.62
	8H	8.37	9.01	8.84	9.46	9.93	12.12	12.77	12.59	13.22	13.69
	12H	8.57	9.15	9.06	9.63	10.10	12.25	12.82	12.74	13.31	13.78
8H	4H	7.94	8.59	8.41	9.04	9.51	11.83	12.48	12.30	12.93	13.40
	6H	8.85	9.38	9.36	9.88	10.36	12.16	12.69	12.66	13.19	13.67
	8H	9.27	9.75	9.79	10.27	10.76	12.35	12.83	12.87	13.34	13.83
	12H	9.68	10.10	10.20	10.60	11.17	12.60	13.02	13.11	13.52	14.09
12H	4H	8.00	8.57	8.49	9.05	9.53	11.82	12.40	12.31	12.88	13.35
	6H	8.99	9.47	9.51	9.98	10.47	12.18	12.65	12.70	13.17	13.66
	8H	9.53	9.95	10.04	10.44	11.02	12.43	12.85	12.95	13.35	13.92