

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: P1059206

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059206  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
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-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

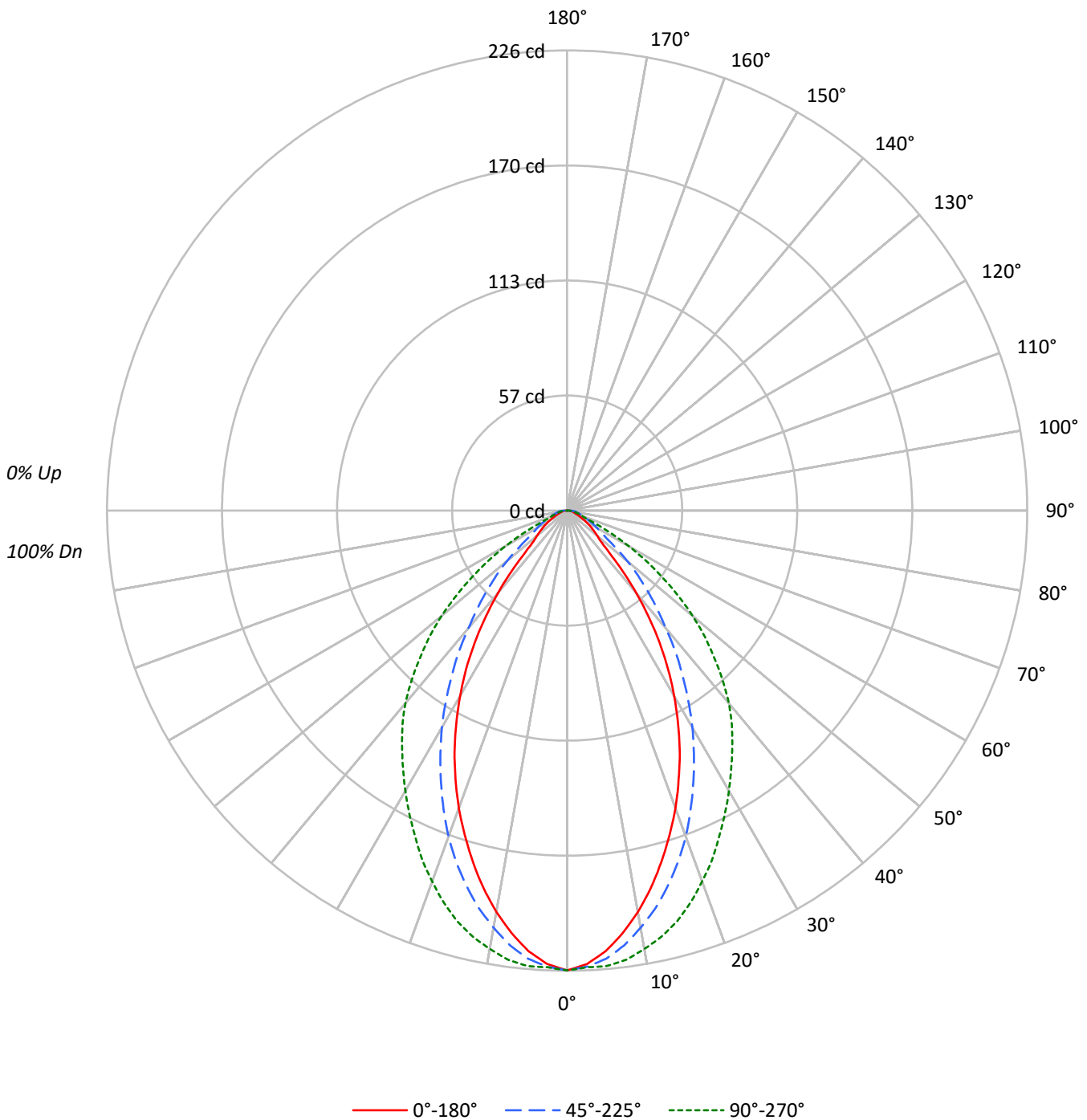
Lumens per Lamp: N/A  
Luminaire Lumens: 302.4 lumens  
Efficiency: N/A  
Efficacy: 24.2 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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	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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	2651	2651	2651
5°	2560	2604	2646
10°	2386	2480	2606
15°	2172	2321	2537
20°	1944	2129	2422
25°	1696	1901	2289
30°	1426	1668	2155
35°	1134	1413	2027
40°	808	1153	1895
45°	482	925	1697
50°	356	705	1469
55°	297	479	1167
60°	240	395	820
65°	192	339	439
70°	158	295	271
75°	150	286	254
80°	156	311	243
85°	216	445	310

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1697 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.7	6.9
10°-20°	53.9	17.8
20°-30°	68.7	22.7
30°-40°	64.7	21.4
40°-50°	46.5	15.4
50°-60°	26.6	8.8
60°-70°	12.2	4.0
70°-80°	6.1	2.0
80°-90°	3.0	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°	143.4	47.4
0°-40°	208.0	68.8
0°-60°	281.1	93.0
0°-90°	302.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	302.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	226	226	226	226	226	
5°	217	222	221	222	224	20
15°	179	185	191	201	209	50
25°	131	137	147	162	177	60
35°	79	85	99	121	141	49
45°	29	35	56	82	102	24
55°	14	15	23	43	57	13
65°	7	10	12	14	16	7
75°	3	7	6	6	6	4
85°	2	3	3	3	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	225.8	225.8	225.8	225.8	225.8
2.5°	222.9	226.1	224.2	224.2	224.5
5°	217.2	221.5	220.9	222.5	224.5
7.5°	209.3	214.0	215.3	219.2	222.5
10°	200.1	205.4	208.0	214.3	218.6
12.5°	189.9	195.8	200.1	208.0	214.3
15°	178.7	184.9	190.9	201.1	208.7
17.5°	167.1	173.4	181.0	192.9	201.8
20°	155.6	161.9	170.4	183.0	193.8
22.5°	143.1	149.3	158.6	172.7	185.9
25°	130.9	136.8	146.7	162.5	176.7
27.5°	118.0	124.0	134.8	152.0	167.8
30°	105.2	111.1	123.0	141.4	158.9
32.5°	92.3	97.9	110.8	131.2	150.0
35°	79.1	84.7	98.6	121.0	141.4
37.5°	65.6	71.2	87.4	111.8	132.9
40°	52.7	59.0	75.2	102.5	123.6
42.5°	40.2	46.8	65.3	92.6	113.1
45°	29.0	35.3	55.7	82.1	102.2
47.5°	22.1	25.4	47.1	71.5	91.6
50°	19.5	19.8	38.6	62.0	80.4
52.5°	16.8	17.1	30.0	52.7	68.6
55°	14.5	14.8	23.4	43.2	57.0
57.5°	12.2	12.9	19.1	34.3	45.8
60°	10.2	11.5	16.8	26.0	34.9
62.5°	8.2	10.5	14.5	19.1	25.1
65°	6.9	9.6	12.2	13.5	15.8
67.5°	5.6	8.9	10.2	9.6	9.6
70°	4.6	7.9	8.6	7.9	7.9
72.5°	4.0	7.6	7.3	6.6	6.6
75°	3.3	6.6	6.3	5.6	5.6
77.5°	3.0	5.6	5.3	4.9	4.6
80°	2.3	4.6	4.6	4.3	3.6
82.5°	2.0	4.0	4.0	3.6	3.0
85°	1.6	3.3	3.3	3.0	2.3
87.5°	1.3	3.0	3.0	2.6	1.6
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	3.39	4.71	3.75	5.02	5.34	10.60	11.91	10.96	12.23	12.54
	3H	4.78	5.95	5.16	6.28	6.64	10.83	12.00	11.21	12.33	12.70
	4H	5.34	6.43	5.75	6.78	7.17	10.94	12.03	11.34	12.38	12.76
	6H	5.81	6.81	6.22	7.18	7.57	11.05	12.05	11.46	12.42	12.81
	8H	5.99	6.94	6.42	7.33	7.74	11.09	12.04	11.52	12.43	12.84
	12H	6.18	7.09	6.61	7.47	7.90	11.15	12.05	11.58	12.44	12.87
4H	2H	4.46	5.55	4.86	5.90	6.28	10.56	11.65	10.96	12.00	12.38
	3H	6.14	7.04	6.56	7.44	7.84	10.93	11.82	11.34	12.22	12.63
	4H	6.98	7.78	7.41	8.20	8.64	11.11	11.91	11.55	12.33	12.77
	6H	7.64	8.33	8.10	8.77	9.24	11.33	12.02	11.79	12.47	12.93
	8H	7.89	8.54	8.36	8.99	9.46	11.43	12.08	11.90	12.52	13.00
	12H	8.15	8.72	8.63	9.20	9.67	11.55	12.12	12.04	12.60	13.08
8H	4H	7.42	8.06	7.88	8.51	8.98	11.16	11.80	11.63	12.25	12.72
	6H	8.36	8.89	8.87	9.39	9.87	11.49	12.02	11.99	12.51	12.99
	8H	8.84	9.31	9.36	9.83	10.32	11.68	12.15	12.20	12.67	13.16
	12H	9.31	9.73	9.83	10.23	10.80	11.91	12.33	12.43	12.83	13.40
12H	4H	7.47	8.05	7.96	8.53	9.00	11.15	11.72	11.64	12.20	12.68
	6H	8.51	8.99	9.03	9.51	10.00	11.51	11.99	12.03	12.51	13.00
	8H	9.11	9.54	9.63	10.03	10.60	11.77	12.20	12.29	12.69	13.26