

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: P1059218

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059218  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
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-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

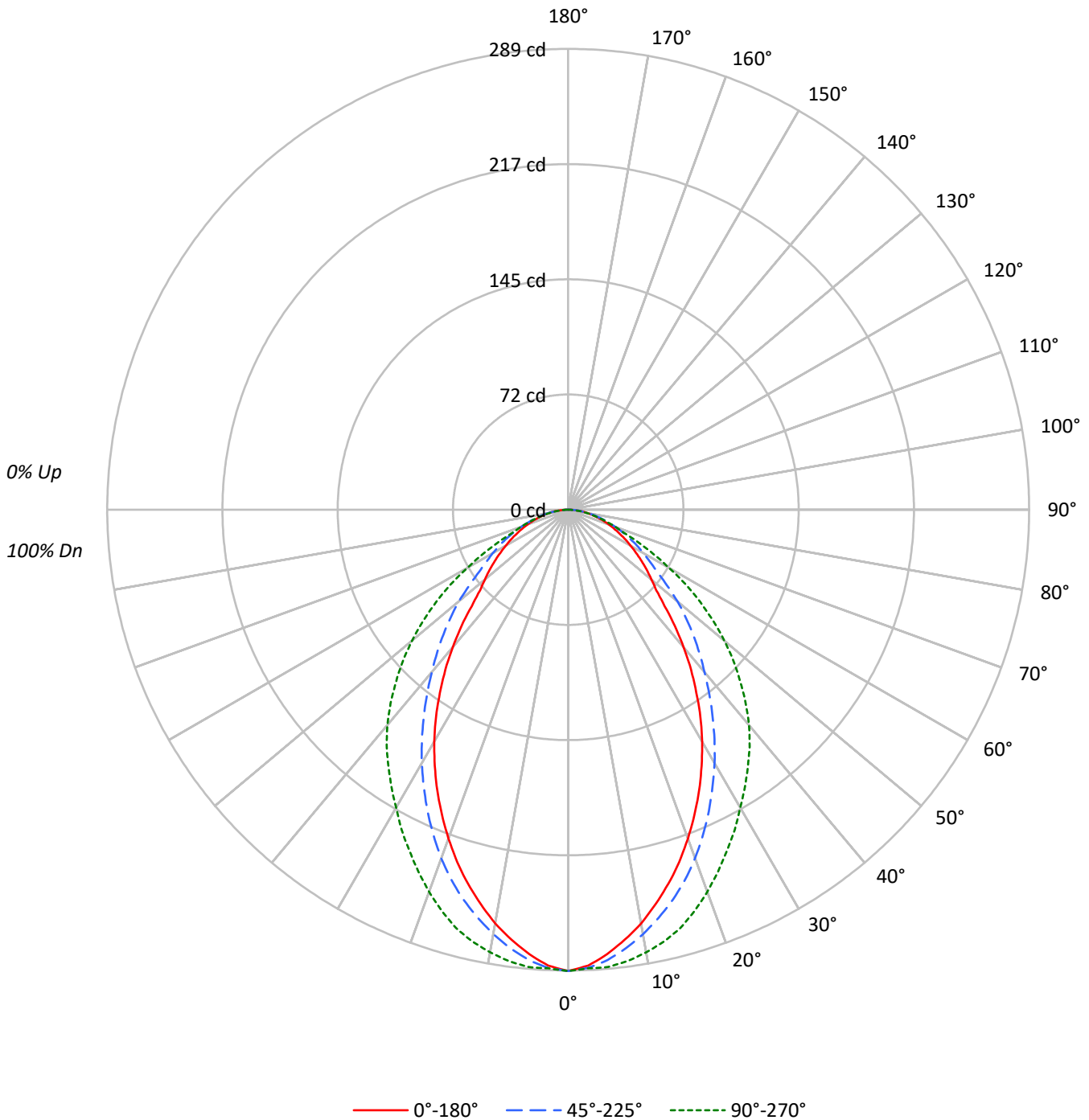
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 522.5 lumens  
Efficiency: N/A  
Efficacy: 41.8 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	3397	3397	3397
5°	3298	3342	3394
10°	3142	3223	3360
15°	2952	3079	3302
20°	2742	2907	3186
25°	2517	2703	3054
30°	2277	2488	2925
35°	2008	2261	2815
40°	1726	2037	2702
45°	1420	1837	2534
50°	1246	1635	2335
55°	1153	1396	2070
60°	1059	1282	1712
65°	989	1178	1348
70°	930	1071	1071
75°	876	985	921
80°	825	893	778
85°	781	862	593

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2534 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.8	5.1
10°-20°	71.7	13.7
20°-30°	97.2	18.6
30°-40°	101.6	19.5
40°-50°	88.2	16.9
50°-60°	65.6	12.6
60°-70°	42.1	8.1
70°-80°	22.6	4.3
80°-90°	6.8	1.3
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°	195.7	37.4
0°-40°	297.3	56.9
0°-60°	451.1	86.3
0°-90°	522.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	522.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	280	284	284	286	288	26
15°	243	249	253	264	272	68
25°	194	200	209	222	236	89
35°	140	147	158	178	196	87
45°	86	92	111	134	153	67
55°	56	58	68	88	101	50
65°	36	39	42	45	48	35
75°	19	22	22	21	20	20
85°	6	7	6	5	4	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	289.3	289.3	289.3	289.3	289.3
2.5°	286.2	290.3	287.6	287.6	287.9
5°	279.8	284.5	283.5	285.5	287.9
7.5°	272.0	277.1	277.4	282.2	285.5
10°	263.5	268.6	270.3	277.1	281.8
12.5°	253.3	259.1	262.1	270.6	277.4
15°	242.8	248.6	253.3	263.5	271.6
17.5°	231.6	237.4	243.5	255.0	263.8
20°	219.4	225.5	232.6	244.2	255.0
22.5°	206.9	213.3	220.8	233.3	245.5
25°	194.3	200.4	208.6	222.5	235.7
27.5°	181.1	187.5	196.0	211.3	226.2
30°	167.9	174.3	183.5	199.7	215.7
32.5°	154.3	160.7	170.6	188.9	206.2
35°	140.1	146.8	157.7	177.7	196.4
37.5°	126.5	132.9	145.1	167.2	186.9
40°	112.6	119.4	132.9	156.7	176.3
42.5°	99.0	105.8	121.7	145.5	164.8
45°	85.5	91.9	110.6	134.3	152.6
47.5°	74.9	79.7	100.0	122.4	140.7
50°	68.2	69.9	89.5	110.9	127.8
52.5°	62.1	63.4	78.0	99.4	114.6
55°	56.3	57.7	68.2	87.5	101.1
57.5°	50.5	52.2	60.7	75.3	87.5
60°	45.1	47.1	54.6	64.4	72.9
62.5°	40.4	42.7	48.5	54.6	60.4
65°	35.6	38.7	42.4	45.1	48.5
67.5°	31.2	34.6	36.6	37.3	37.6
70°	27.1	30.5	31.2	31.2	31.2
72.5°	23.1	26.8	26.1	25.8	25.4
75°	19.3	22.4	21.7	20.7	20.3
77.5°	15.6	18.3	17.3	16.6	15.6
80°	12.2	14.2	13.2	12.5	11.5
82.5°	9.2	10.5	9.5	8.8	7.8
85°	5.8	7.1	6.4	5.4	4.4
87.5°	3.1	4.1	3.4	3.1	1.7
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	11.03	12.51	11.40	12.83	13.14	13.79	15.27	14.16	15.59	15.90
	3H	12.74	14.07	13.12	14.40	14.76	14.81	16.14	15.19	16.47	16.83
	4H	13.40	14.65	13.80	15.00	15.38	15.18	16.42	15.58	16.77	17.15
	6H	13.90	15.05	14.32	15.42	15.81	15.43	16.58	15.84	16.95	17.34
	8H	14.08	15.18	14.51	15.57	15.97	15.50	16.59	15.93	16.98	17.39
	12H	14.21	15.26	14.64	15.64	16.07	15.54	16.58	15.97	16.97	17.39
4H	2H	11.81	13.05	12.21	13.40	13.78	14.06	15.31	14.46	15.66	16.04
	3H	13.73	14.77	14.15	15.17	15.57	15.32	16.35	15.73	16.75	17.15
	4H	14.54	15.47	14.98	15.89	16.33	15.80	16.73	16.24	17.15	17.59
	6H	15.18	15.99	15.64	16.44	16.90	16.18	16.99	16.64	17.43	17.89
	8H	15.41	16.17	15.88	16.61	17.08	16.29	17.05	16.76	17.49	17.96
	12H	15.59	16.26	16.07	16.74	17.21	16.36	17.04	16.85	17.52	17.99
8H	4H	14.86	15.62	15.33	16.06	16.53	15.99	16.75	16.46	17.19	17.66
	6H	15.66	16.28	16.15	16.77	17.25	16.48	17.10	16.98	17.60	18.07
	8H	15.98	16.54	16.50	17.05	17.54	16.66	17.22	17.17	17.73	18.21
	12H	16.26	16.76	16.77	17.25	17.82	16.79	17.28	17.30	17.78	18.34
12H	4H	14.89	15.56	15.37	16.04	16.51	16.01	16.68	16.49	17.16	17.63
	6H	15.71	16.27	16.22	16.78	17.27	16.52	17.08	17.03	17.59	18.08
	8H	16.10	16.60	16.61	17.09	17.66	16.75	17.24	17.26	17.73	18.30