

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: P1059216

Luminaire Tested: S123RDRP-S340D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059216  
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-S340D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

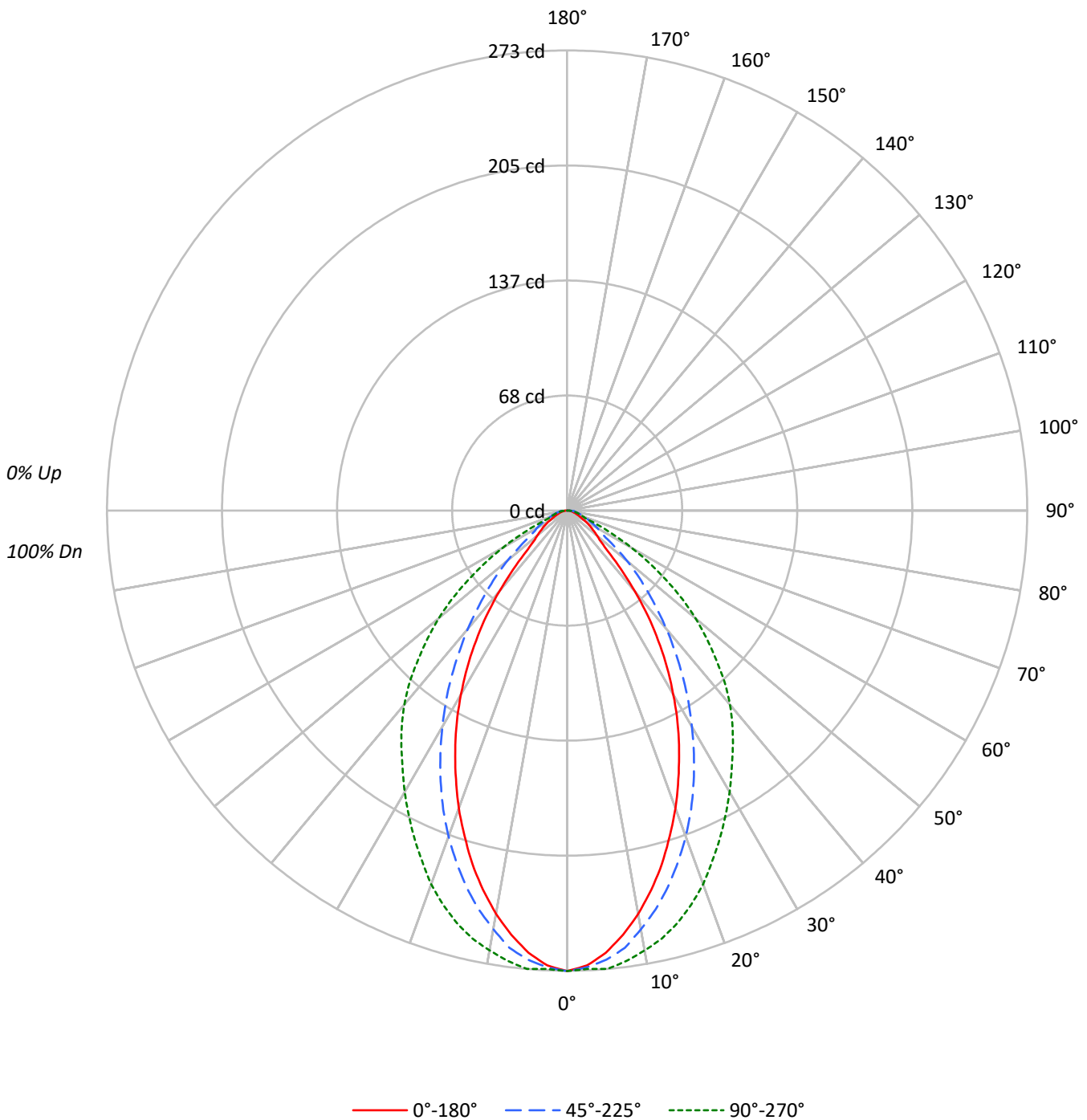
Lumens per Lamp: N/A  
Luminaire Lumens: 366.7 lumens  
Efficiency: N/A  
Efficacy: 29.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (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	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°	3208	3208	3208
5°	3104	3152	3217
10°	2897	3006	3160
15°	2640	2809	3078
20°	2349	2570	2948
25°	2035	2300	2779
30°	1707	2007	2614
35°	1352	1707	2457
40°	957	1404	2304
45°	563	1111	2074
50°	422	844	1816
55°	354	569	1460
60°	287	486	1036
65°	225	414	547
70°	199	360	336
75°	186	340	322
80°	183	365	325
85°	229	552	418

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2074 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.1	6.9
10°-20°	65.3	17.8
20°-30°	83.2	22.7
30°-40°	78.3	21.3
40°-50°	56.4	15.4
50°-60°	32.6	8.9
60°-70°	14.9	4.1
70°-80°	7.4	2.0
80°-90°	3.5	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°	173.7	47.4
0°-40°	252.0	68.7
0°-60°	340.9	93.0
0°-90°	366.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	366.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	273	273	273	273	273	
5°	263	268	267	270	273	24
15°	217	225	231	244	253	61
25°	157	165	178	197	214	72
35°	94	102	119	147	171	59
45°	34	42	67	100	125	29
55°	17	18	28	53	71	16
65°	8	12	15	17	20	8
75°	4	8	8	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°	273.2	273.2	273.2	273.2	273.2
2.5°	270.1	273.5	271.2	271.5	272.2
5°	263.3	267.8	267.4	270.1	272.9
7.5°	253.8	258.9	261.7	265.7	269.5
10°	243.0	248.8	252.1	259.6	265.0
12.5°	230.4	237.9	242.3	252.1	260.0
15°	217.2	225.0	231.1	244.0	253.2
17.5°	202.3	210.7	218.6	233.8	245.0
20°	188.0	196.2	205.7	222.3	235.9
22.5°	172.4	181.2	192.1	209.7	225.0
25°	157.1	165.3	177.5	197.2	214.5
27.5°	141.9	150.0	162.9	184.6	203.6
30°	125.9	134.4	148.0	172.1	192.8
32.5°	110.3	118.4	133.7	159.8	181.6
35°	94.3	102.5	119.1	146.6	171.4
37.5°	78.7	87.2	104.9	135.7	161.2
40°	62.4	71.6	91.6	124.5	150.3
42.5°	47.2	57.0	78.4	113.0	138.5
45°	33.9	42.4	66.9	100.5	124.9
47.5°	26.5	30.9	56.3	87.6	112.3
50°	23.1	23.8	46.2	75.7	99.4
52.5°	20.0	20.7	36.3	64.5	85.9
55°	17.3	18.0	27.8	52.9	71.3
57.5°	14.6	15.6	23.1	42.1	57.4
60°	12.2	13.6	20.7	32.2	44.1
62.5°	9.8	12.2	17.6	23.8	31.6
65°	8.1	11.5	14.9	16.6	19.7
67.5°	6.8	10.5	12.6	11.9	11.5
70°	5.8	9.5	10.5	9.5	9.8
72.5°	4.8	8.8	8.8	8.1	8.1
75°	4.1	7.8	7.5	7.1	7.1
77.5°	3.4	6.8	6.4	6.1	5.8
80°	2.7	5.4	5.4	5.1	4.8
82.5°	2.4	4.4	4.4	4.4	3.7
85°	1.7	3.7	4.1	3.7	3.1
87.5°	1.4	3.4	3.4	3.1	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	4.02	5.34	4.38	5.65	5.96	11.39	12.71	11.75	13.02	13.33
	3H	5.41	6.58	5.79	6.91	7.27	11.62	12.79	12.00	13.12	13.48
	4H	5.97	7.06	6.37	7.41	7.79	11.73	12.82	12.13	13.17	13.55
	6H	6.40	7.40	6.81	7.77	8.16	11.84	12.85	12.26	13.22	13.61
	8H	6.58	7.53	7.01	7.92	8.32	11.90	12.85	12.33	13.24	13.64
	12H	6.73	7.64	7.17	8.02	8.45	11.96	12.86	12.39	13.25	13.68
4H	2H	5.11	6.20	5.52	6.55	6.94	11.34	12.43	11.75	12.78	13.17
	3H	6.78	7.67	7.19	8.07	8.48	11.70	12.60	12.11	13.00	13.40
	4H	7.59	8.39	8.03	8.81	9.25	11.90	12.70	12.33	13.12	13.56
	6H	8.23	8.92	8.69	9.36	9.83	12.13	12.82	12.59	13.26	13.73
	8H	8.46	9.11	8.93	9.55	10.02	12.23	12.88	12.70	13.32	13.79
	12H	8.67	9.25	9.16	9.73	10.20	12.36	12.93	12.85	13.41	13.89
8H	4H	8.03	8.68	8.50	9.12	9.60	11.93	12.58	12.40	13.03	13.50
	6H	8.94	9.47	9.44	9.96	10.45	12.26	12.79	12.77	13.29	13.77
	8H	9.36	9.83	9.88	10.35	10.84	12.45	12.93	12.97	13.44	13.94
	12H	9.77	10.20	10.29	10.69	11.26	12.70	13.12	13.22	13.62	14.19
12H	4H	8.09	8.66	8.57	9.14	9.62	11.92	12.49	12.41	12.98	13.45
	6H	9.07	9.55	9.59	10.06	10.56	12.28	12.76	12.80	13.27	13.76
	8H	9.61	10.03	10.13	10.53	11.10	12.53	12.96	13.05	13.45	14.02