

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: P1059208

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059208  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D927-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

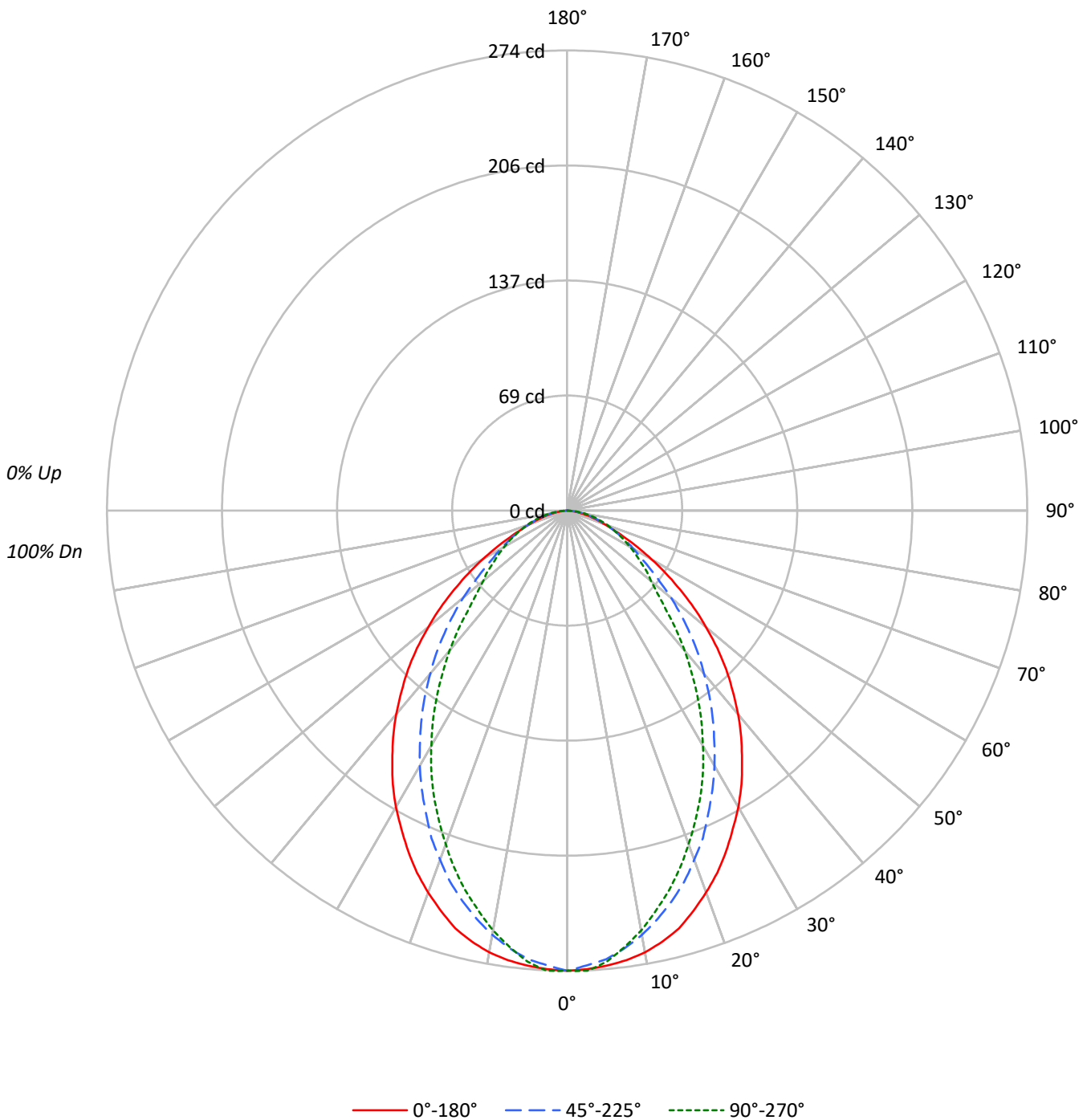
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 479.2 lumens  
Efficiency: N/A  
Efficacy: 38.3 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	3217	3217	3217
5°	3206	3160	3179
10°	3185	3058	3027
15°	3130	2926	2846
20°	3024	2765	2642
25°	2901	2577	2432
30°	2763	2380	2192
35°	2600	2167	1940
40°	2428	1944	1671
45°	2225	1717	1373
50°	1973	1474	1191
55°	1679	1234	1091
60°	1369	1076	1012
65°	1042	950	942
70°	814	848	882
75°	658	762	821
80°	487	622	757
85°	269	404	660

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2225 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.4	5.3
10°-20°	68.4	14.3
20°-30°	93.0	19.4
30°-40°	96.4	20.1
40°-50°	81.3	17.0
50°-60°	57.7	12.0
60°-70°	35.3	7.4
70°-80°	17.6	3.7
80°-90°	4.0	0.8
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°	186.9	39.0
0°-40°	283.3	59.1
0°-60°	422.4	88.1
0°-90°	479.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	479.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	274	274	274	274	274	
5°	272	272	268	270	270	26
15°	258	253	241	236	234	72
25°	224	214	199	192	188	103
35°	181	168	151	141	135	113
45°	134	120	103	89	83	103
55°	82	73	60	55	53	74
65°	38	36	34	34	34	38
75°	14	16	17	18	18	16
85°	2	2	3	4	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	274.0	274.0	274.0	274.0	274.0
2.5°	273.3	273.7	271.0	274.0	274.3
5°	272.0	272.0	268.1	269.7	269.7
7.5°	270.0	269.4	262.8	262.8	262.1
10°	267.1	265.1	256.5	254.9	253.9
12.5°	262.8	259.5	249.0	246.0	244.0
15°	257.5	252.6	240.7	236.4	234.1
17.5°	249.9	245.0	231.8	225.9	223.3
20°	242.0	234.8	221.3	215.4	211.4
22.5°	233.5	224.3	211.1	203.8	199.6
25°	223.9	214.1	198.9	191.7	187.7
27.5°	213.7	202.9	187.4	179.1	175.2
30°	203.8	191.3	175.5	166.3	161.7
32.5°	193.3	179.1	163.0	153.5	148.8
35°	181.4	167.6	151.2	140.6	135.3
37.5°	170.3	156.1	139.0	127.8	121.8
40°	158.4	144.2	126.8	115.3	109.0
42.5°	145.9	132.4	115.3	101.8	95.8
45°	134.0	119.9	103.4	89.2	82.7
47.5°	121.2	108.0	91.9	77.4	72.8
50°	108.0	95.8	80.7	67.5	65.2
52.5°	95.2	85.0	69.5	60.9	59.9
55°	82.0	73.4	60.3	55.0	53.3
57.5°	69.8	63.6	51.7	49.1	48.4
60°	58.3	53.0	45.8	44.1	43.1
62.5°	47.1	44.1	39.8	39.2	38.5
65°	37.5	36.2	34.2	34.2	33.9
67.5°	29.6	29.6	29.3	30.0	29.6
70°	23.7	24.0	24.7	25.4	25.7
72.5°	18.8	19.8	20.4	21.4	21.7
75°	14.5	15.5	16.8	17.5	18.1
77.5°	10.5	11.5	12.8	13.8	14.5
80°	7.2	7.9	9.2	10.5	11.2
82.5°	4.6	4.9	5.9	7.2	7.9
85°	2.0	2.3	3.0	4.3	4.9
87.5°	0.0	0.0	0.3	1.3	2.3
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	12.87	14.32	13.24	14.64	14.95	10.97	12.42	11.33	12.73	13.05
	3H	13.77	15.06	14.14	15.39	15.75	12.54	13.84	12.92	14.17	14.53
	4H	14.05	15.26	14.45	15.61	15.99	13.14	14.35	13.54	14.70	15.08
	6H	14.20	15.32	14.61	15.68	16.08	13.59	14.70	14.00	15.07	15.47
	8H	14.22	15.28	14.65	15.67	16.08	13.74	14.80	14.16	15.19	15.59
	12H	14.21	15.23	14.65	15.61	16.04	13.83	14.85	14.26	15.23	15.66
4H	2H	13.11	14.33	13.52	14.68	15.06	11.51	12.72	11.91	13.07	13.45
	3H	14.23	15.23	14.64	15.63	16.03	13.28	14.28	13.69	14.68	15.09
	4H	14.62	15.52	15.05	15.93	16.37	14.00	14.89	14.43	15.31	15.75
	6H	14.86	15.64	15.32	16.08	16.54	14.57	15.34	15.02	15.79	16.25
	8H	14.90	15.63	15.36	16.07	16.54	14.76	15.48	15.22	15.93	16.40
	12H	14.91	15.55	15.39	16.03	16.51	14.89	15.54	15.38	16.02	16.49
8H	4H	14.77	15.50	15.24	15.95	16.42	14.20	14.93	14.67	15.38	15.84
	6H	15.08	15.68	15.58	16.18	16.65	14.88	15.48	15.38	15.97	16.45
	8H	15.16	15.70	15.68	16.21	16.70	15.13	15.67	15.65	16.18	16.67
	12H	15.19	15.67	15.71	16.16	16.73	15.34	15.81	15.85	16.31	16.87
12H	4H	14.78	15.43	15.26	15.91	16.38	14.20	14.85	14.69	15.33	15.80
	6H	15.10	15.64	15.62	16.15	16.64	14.89	15.42	15.40	15.93	16.42
	8H	15.21	15.69	15.72	16.18	16.75	15.19	15.66	15.70	16.15	16.72