

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: P1059189

Luminaire Tested: S123RDRP-S340D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059189  
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-S340D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

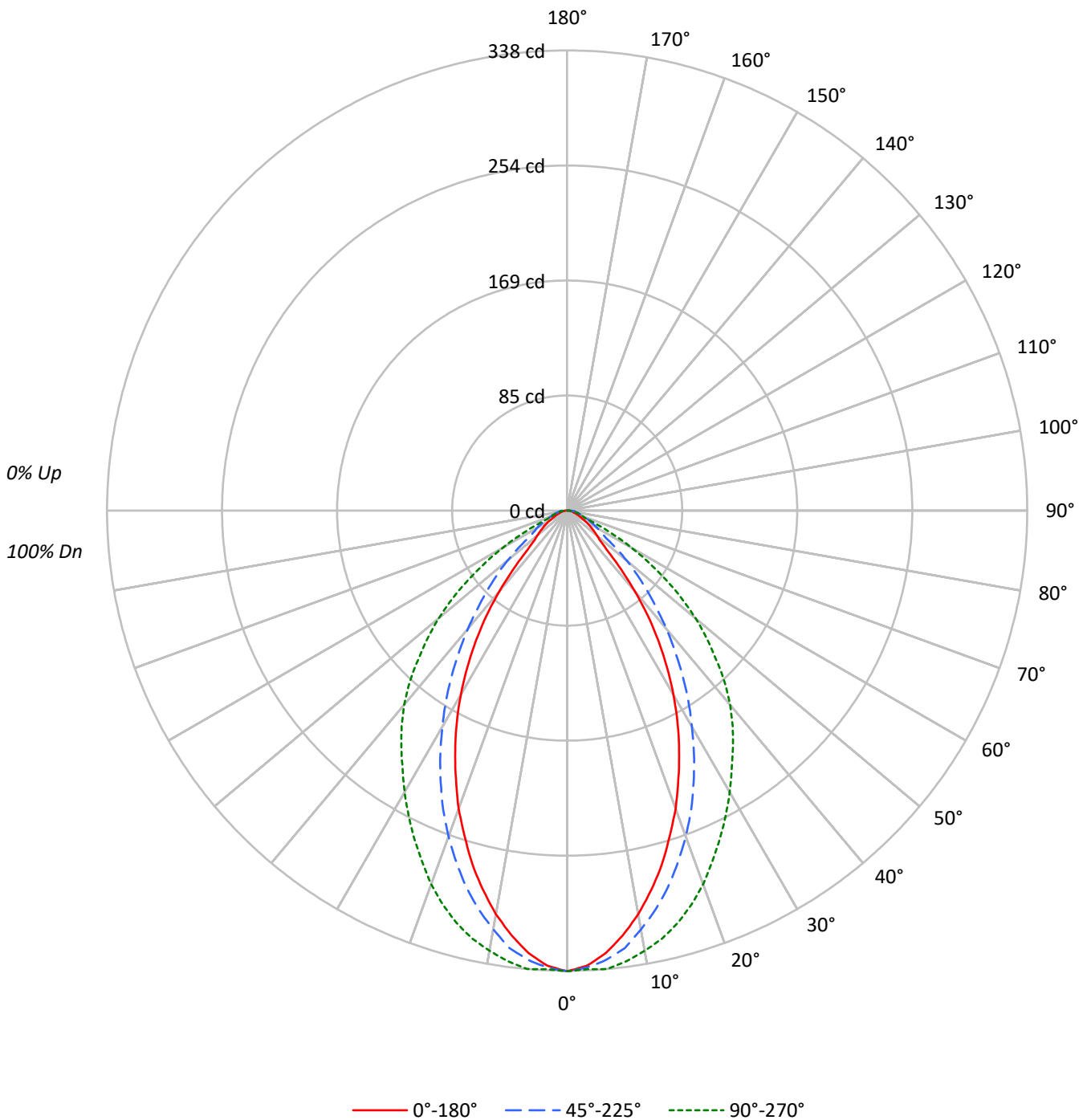
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 454.2 lumens  
Efficiency: N/A  
Efficacy: 36.3 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 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°	3974	3974	3974
5°	3845	3904	3984
10°	3589	3724	3915
15°	3270	3480	3812
20°	2910	3183	3650
25°	2521	2848	3443
30°	2115	2485	3238
35°	1676	2114	3043
40°	1185	1740	2854
45°	697	1375	2569
50°	522	1045	2251
55°	438	706	1808
60°	355	601	1282
65°	281	514	678
70°	244	446	419
75°	227	417	399
80°	230	453	399
85°	283	674	512

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2569 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.1	6.9
10°-20°	80.9	17.8
20°-30°	103.1	22.7
30°-40°	97.0	21.3
40°-50°	69.8	15.4
50°-60°	40.3	8.9
60°-70°	18.4	4.1
70°-80°	9.2	2.0
80°-90°	4.3	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°	215.1	47.4
0°-40°	312.1	68.7
0°-60°	422.2	93.0
0°-90°	454.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	454.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	338	338	338	338	338	
5°	326	332	331	335	338	30
15°	269	279	286	302	314	75
25°	195	205	220	244	266	89
35°	117	127	148	182	212	72
45°	42	52	83	124	155	36
55°	21	22	34	66	88	19
65°	10	14	18	21	24	10
75°	5	10	9	9	9	5
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	338.4	338.4	338.4	338.4	338.4
2.5°	334.6	338.8	335.9	336.3	337.1
5°	326.2	331.7	331.2	334.6	338.0
7.5°	314.4	320.7	324.1	329.1	333.8
10°	301.0	308.1	312.3	321.6	328.3
12.5°	285.4	294.7	300.1	312.3	322.0
15°	269.0	278.7	286.3	302.2	313.6
17.5°	250.5	261.0	270.7	289.6	303.5
20°	232.9	243.0	254.7	275.3	292.1
22.5°	213.5	224.5	237.9	259.8	278.7
25°	194.6	204.7	219.8	244.2	265.7
27.5°	175.7	185.8	201.8	228.7	252.2
30°	156.0	166.5	183.3	213.1	238.8
32.5°	136.6	146.7	165.6	198.0	224.9
35°	116.9	126.9	147.5	181.6	212.3
37.5°	97.5	108.0	129.9	168.1	199.7
40°	77.3	88.7	113.5	154.3	186.2
42.5°	58.4	70.6	97.1	140.0	171.5
45°	42.0	52.5	82.8	124.4	154.7
47.5°	32.8	38.3	69.8	108.5	139.1
50°	28.6	29.4	57.2	93.7	123.2
52.5°	24.8	25.6	45.0	79.9	106.3
55°	21.4	22.3	34.5	65.6	88.3
57.5°	18.1	19.3	28.6	52.1	71.0
60°	15.1	16.8	25.6	39.9	54.6
62.5°	12.2	15.1	21.9	29.4	39.1
65°	10.1	14.3	18.5	20.6	24.4
67.5°	8.4	13.0	15.6	14.7	14.3
70°	7.1	11.8	13.0	11.8	12.2
72.5°	5.9	10.9	10.9	10.1	10.1
75°	5.0	9.7	9.2	8.8	8.8
77.5°	4.2	8.4	8.0	7.6	7.1
80°	3.4	6.7	6.7	6.3	5.9
82.5°	2.9	5.5	5.5	5.5	4.6
85°	2.1	4.6	5.0	4.6	3.8
87.5°	1.7	4.2	4.2	3.8	2.5
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	4.76	6.07	5.12	6.39	6.70	12.12	13.44	12.49	13.75	14.07
	3H	6.14	7.31	6.52	7.64	8.01	12.35	13.52	12.73	13.85	14.22
	4H	6.70	7.79	7.10	8.14	8.52	12.47	13.56	12.87	13.91	14.29
	6H	7.13	8.14	7.55	8.51	8.90	12.58	13.59	13.00	13.96	14.35
	8H	7.31	8.26	7.74	8.65	9.05	12.63	13.58	13.06	13.97	14.38
	12H	7.46	8.37	7.89	8.75	9.18	12.69	13.60	13.13	13.98	14.42
4H	2H	5.86	6.95	6.26	7.30	7.68	12.08	13.17	12.48	13.52	13.91
	3H	7.52	8.41	7.93	8.82	9.22	12.44	13.34	12.86	13.74	14.14
	4H	8.33	9.13	8.77	9.55	10.00	12.64	13.44	13.07	13.86	14.30
	6H	8.97	9.66	9.43	10.11	10.57	12.87	13.56	13.33	14.00	14.47
	8H	9.20	9.85	9.67	10.30	10.77	12.97	13.62	13.44	14.06	14.53
	12H	9.42	9.99	9.90	10.47	10.94	13.10	13.67	13.59	14.15	14.63
8H	4H	8.77	9.42	9.24	9.87	10.34	12.68	13.32	13.15	13.77	14.24
	6H	9.69	10.22	10.19	10.71	11.19	13.01	13.53	13.51	14.03	14.51
	8H	10.11	10.58	10.63	11.10	11.59	13.20	13.67	13.72	14.19	14.68
	12H	10.52	10.94	11.04	11.44	12.01	13.45	13.87	13.96	14.36	14.93
12H	4H	8.83	9.40	9.32	9.89	10.36	12.67	13.24	13.15	13.72	14.19
	6H	9.82	10.30	10.34	10.81	11.30	13.02	13.50	13.54	14.01	14.51
	8H	10.36	10.78	10.88	11.28	11.85	13.28	13.70	13.79	14.20	14.77