

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: P1059180

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059180  
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-S340D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

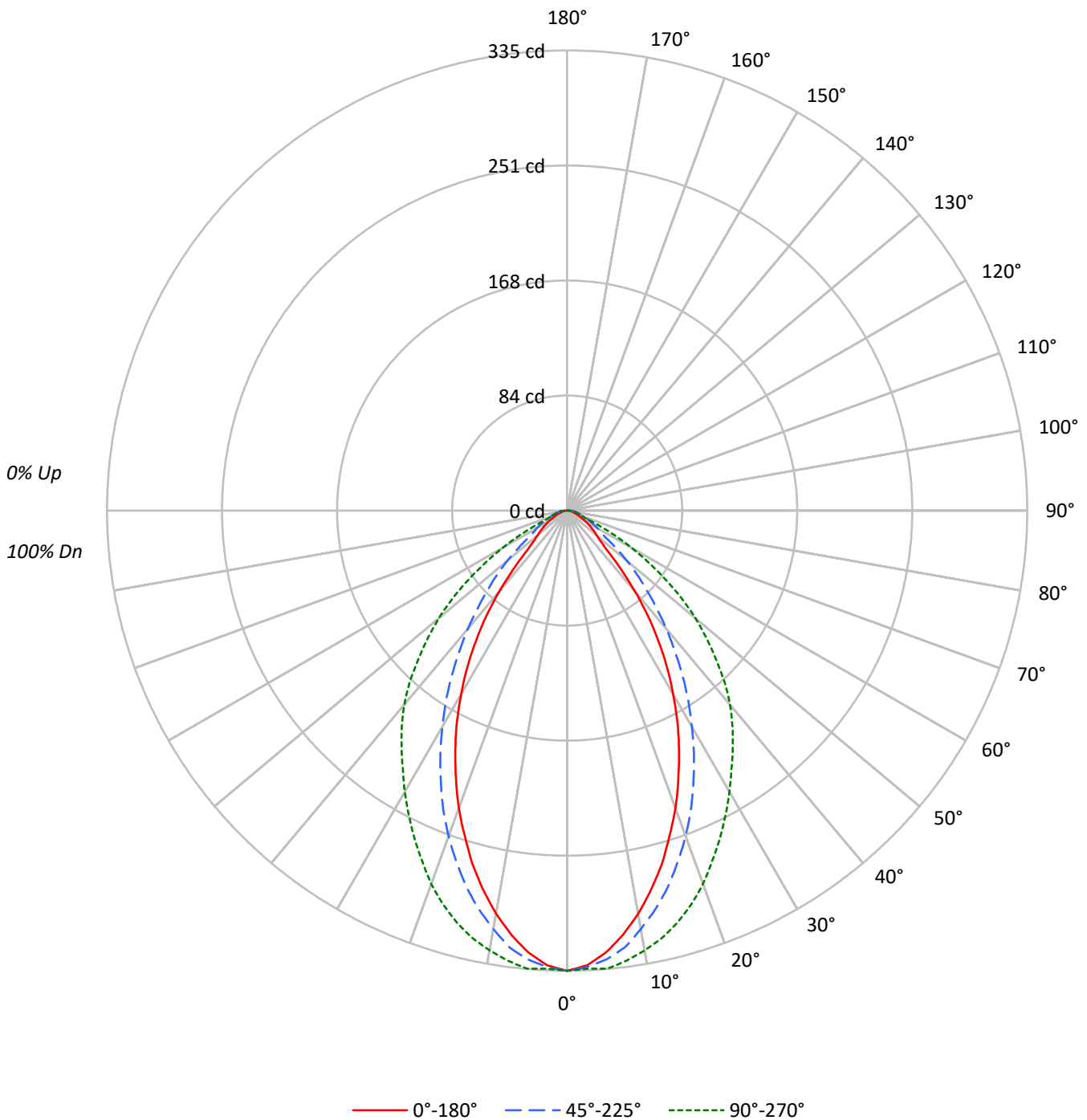
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 449.8 lumens  
Efficiency: N/A  
Efficacy: 36.0 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°	3935	3935	3935
5°	3807	3866	3945
10°	3553	3688	3876
15°	3239	3446	3775
20°	2882	3152	3615
25°	2497	2821	3409
30°	2094	2461	3205
35°	1659	2094	3013
40°	1174	1723	2827
45°	691	1362	2544
50°	517	1034	2229
55°	434	698	1789
60°	352	597	1271
65°	278	508	670
70°	244	443	415
75°	227	417	395
80°	223	453	392
85°	283	674	498

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2544 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.8	6.9
10°-20°	80.1	17.8
20°-30°	102.1	22.7
30°-40°	96.0	21.3
40°-50°	69.1	15.4
50°-60°	39.9	8.9
60°-70°	18.3	4.1
70°-80°	9.1	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°	213.0	47.4
0°-40°	309.1	68.7
0°-60°	418.1	93.0
0°-90°	449.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	449.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	335	335	335	335	335	
5°	323	328	328	331	335	30
15°	266	276	284	299	310	74
25°	193	203	218	242	263	88
35°	116	126	146	180	210	72
45°	42	52	82	123	153	35
55°	21	22	34	65	87	19
65°	10	14	18	20	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°	335.1	335.1	335.1	335.1	335.1
2.5°	331.3	335.5	332.6	333.0	333.8
5°	323.0	328.4	328.0	331.3	334.7
7.5°	311.4	317.6	320.9	325.9	330.5
10°	298.0	305.1	309.3	318.4	325.1
12.5°	282.6	291.8	297.2	309.3	318.8
15°	266.4	276.0	283.5	299.3	310.5
17.5°	248.1	258.5	268.1	286.8	300.5
20°	230.6	240.6	252.2	272.6	289.3
22.5°	211.5	222.3	235.6	257.2	276.0
25°	192.7	202.7	217.7	241.8	263.1
27.5°	174.0	184.0	199.8	226.4	249.7
30°	154.4	164.8	181.5	211.0	236.4
32.5°	135.3	145.3	164.0	196.1	222.7
35°	115.7	125.7	146.1	179.8	210.2
37.5°	96.6	107.0	128.6	166.5	197.7
40°	76.6	87.8	112.4	152.8	184.4
42.5°	57.9	69.9	96.2	138.6	169.8
45°	41.6	52.0	82.0	123.2	153.2
47.5°	32.5	37.9	69.1	107.4	137.8
50°	28.3	29.1	56.6	92.8	122.0
52.5°	24.6	25.4	44.5	79.1	105.3
55°	21.2	22.1	34.1	64.9	87.4
57.5°	17.9	19.1	28.3	51.6	70.3
60°	15.0	16.6	25.4	39.5	54.1
62.5°	12.1	15.0	21.6	29.1	38.7
65°	10.0	14.2	18.3	20.4	24.1
67.5°	8.3	12.9	15.4	14.6	14.2
70°	7.1	11.7	12.9	11.7	12.1
72.5°	5.8	10.8	10.8	10.0	10.0
75°	5.0	9.6	9.2	8.7	8.7
77.5°	4.2	8.3	7.9	7.5	7.1
80°	3.3	6.7	6.7	6.2	5.8
82.5°	2.9	5.4	5.4	5.4	4.6
85°	2.1	4.6	5.0	4.6	3.7
87.5°	1.7	4.2	4.2	3.7	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	4.72	6.03	5.08	6.35	6.66	12.09	13.41	12.46	13.72	14.04
	3H	6.11	7.28	6.49	7.61	7.98	12.32	13.49	12.70	13.82	14.19
	4H	6.67	7.76	7.07	8.11	8.49	12.44	13.53	12.84	13.88	14.26
	6H	7.10	8.10	7.52	8.47	8.87	12.55	13.55	12.97	13.92	14.32
	8H	7.28	8.23	7.71	8.62	9.02	12.60	13.55	13.03	13.94	14.35
	12H	7.43	8.34	7.87	8.72	9.16	12.66	13.57	13.09	13.95	14.38
4H	2H	5.82	6.91	6.22	7.26	7.64	12.05	13.14	12.45	13.49	13.87
	3H	7.49	8.38	7.90	8.78	9.19	12.41	13.30	12.82	13.71	14.11
	4H	8.30	9.10	8.74	9.52	9.96	12.61	13.41	13.04	13.82	14.27
	6H	8.94	9.63	9.40	10.07	10.54	12.83	13.52	13.30	13.97	14.44
	8H	9.17	9.82	9.64	10.26	10.74	12.94	13.58	13.41	14.03	14.50
	12H	9.39	9.96	9.87	10.44	10.91	13.06	13.64	13.55	14.12	14.59
8H	4H	8.74	9.39	9.21	9.84	10.31	12.64	13.29	13.11	13.74	14.21
	6H	9.66	10.19	10.16	10.68	11.17	12.97	13.50	13.47	14.00	14.48
	8H	10.08	10.55	10.60	11.07	11.56	13.16	13.64	13.68	14.15	14.64
	12H	10.50	10.92	11.01	11.41	11.98	13.41	13.83	13.92	14.33	14.90
12H	4H	8.80	9.37	9.29	9.86	10.33	12.63	13.21	13.12	13.69	14.16
	6H	9.79	10.27	10.31	10.78	11.28	12.99	13.46	13.51	13.98	14.47
	8H	10.33	10.75	10.84	11.25	11.82	13.24	13.67	13.76	14.16	14.73