

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: P1059210

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059210  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
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-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

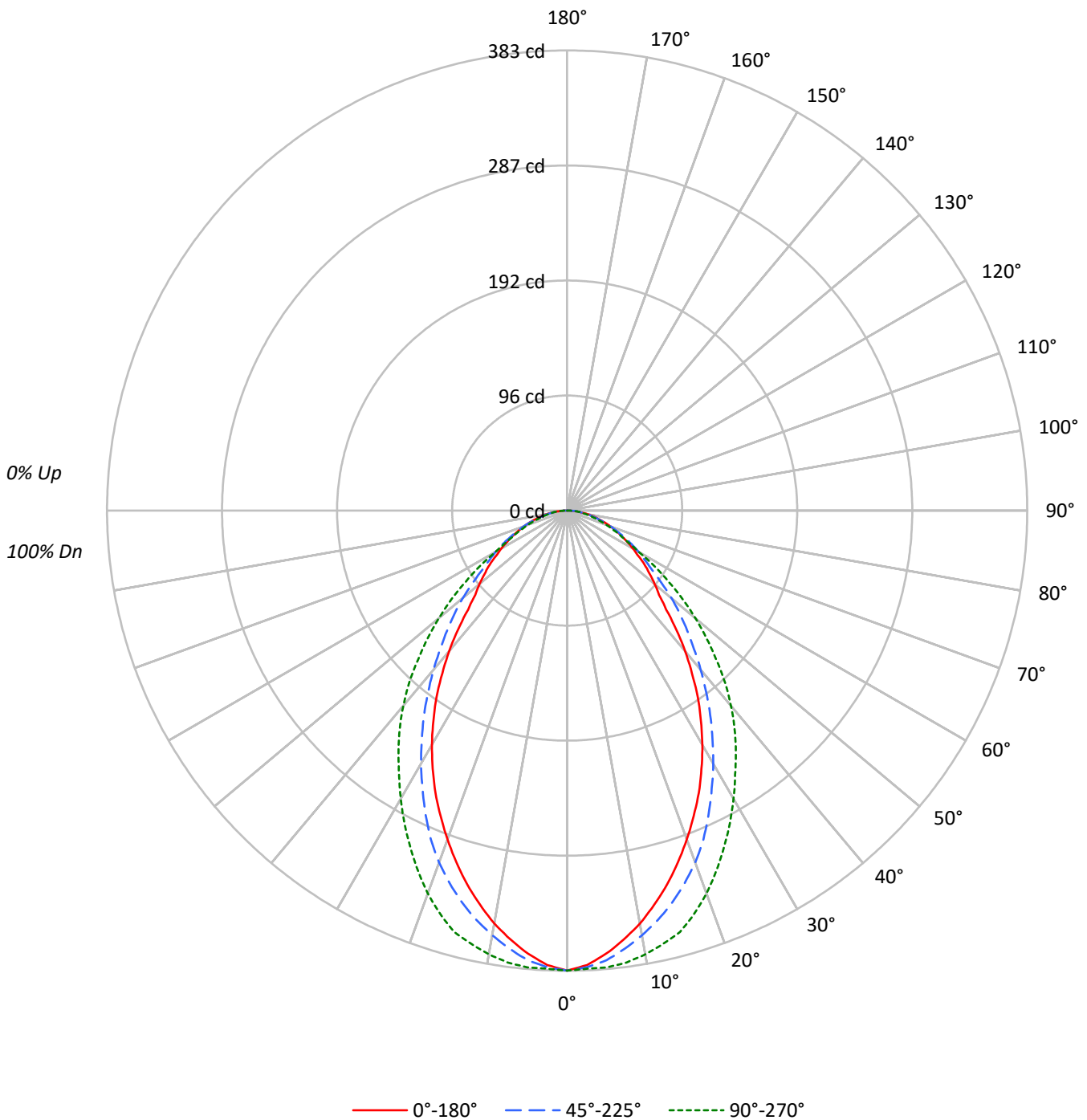
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 672.9 lumens  
Efficiency: N/A  
Efficacy: 53.8 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 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 (Ain): 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	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	101	97	100	97	94	96	94	92	92	91	89	87																												
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																												
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																												
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																												
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																												
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																												
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41																												
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																												
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																												
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32																												

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

	0°	45°	90°
0°	4496	4496	4496
5°	4366	4428	4498
10°	4161	4279	4471
15°	3914	4107	4414
20°	3640	3895	4237
25°	3360	3612	4005
30°	3052	3298	3757
35°	2716	2976	3509
40°	2344	2652	3253
45°	1938	2348	2916
50°	1739	2072	2547
55°	1613	1767	2111
60°	1487	1609	1618
65°	1384	1456	1356
70°	1301	1325	1188
75°	1225	1180	1048
80°	1156	1068	981
85°	1105	1199	1105

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2916 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.5	5.3
10°-20°	95.5	14.2
20°-30°	129.3	19.2
30°-40°	132.8	19.7
40°-50°	111.6	16.6
50°-60°	80.0	11.9
60°-70°	50.9	7.6
70°-80°	28.0	4.2
80°-90°	9.3	1.4
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°	260.3	38.7
0°-40°	393.1	58.4
0°-60°	584.6	86.9
0°-90°	672.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	672.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	383	383	383	383	383	
5°	370	377	376	378	382	35
15°	322	331	338	352	363	90
25°	259	269	279	294	309	119
35°	190	200	208	226	245	118
45°	117	127	141	162	176	92
55°	79	80	86	98	103	70
65°	50	53	52	49	49	50
75°	27	30	26	24	23	29
85°	8	9	9	9	8	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	382.9	382.9	382.9	382.9	382.9
2.5°	378.6	383.9	380.3	380.6	381.6
5°	370.4	377.0	375.7	378.3	381.6
7.5°	360.2	367.4	367.8	374.0	379.3
10°	349.0	356.6	358.9	368.4	375.0
12.5°	335.8	344.0	349.0	360.8	369.4
15°	322.0	330.9	337.8	352.3	363.1
17.5°	306.8	316.4	325.2	340.7	351.9
20°	291.3	301.5	311.7	326.2	339.1
22.5°	275.2	285.7	296.3	310.4	324.6
25°	259.3	269.2	278.8	293.9	309.1
27.5°	242.2	252.4	260.7	277.5	293.3
30°	225.1	235.3	243.2	260.7	277.1
32.5°	207.3	217.8	225.1	243.2	260.3
35°	189.5	199.7	207.6	226.1	244.8
37.5°	170.7	181.9	189.8	210.6	229.0
40°	152.9	163.4	173.0	194.8	212.2
42.5°	134.4	145.3	156.2	178.6	194.8
45°	116.7	126.9	141.4	161.8	175.6
47.5°	103.8	110.4	127.2	144.3	157.5
50°	95.2	97.9	113.4	128.5	139.4
52.5°	86.7	88.6	99.2	113.0	121.3
55°	78.8	80.4	86.3	97.9	103.1
57.5°	70.2	71.8	76.8	83.4	86.3
60°	63.3	64.6	68.5	69.5	68.9
62.5°	56.4	58.3	60.3	58.0	57.0
65°	49.8	52.7	52.4	49.4	48.8
67.5°	43.8	46.8	45.1	42.2	41.2
70°	37.9	40.9	38.6	35.6	34.6
72.5°	32.3	35.6	32.0	29.3	28.7
75°	27.0	29.7	26.0	24.1	23.1
77.5°	22.1	24.1	20.8	19.1	18.5
80°	17.1	18.5	15.8	14.8	14.5
82.5°	12.5	13.2	11.5	12.2	11.9
85°	8.2	8.6	8.9	9.2	8.2
87.5°	4.0	5.6	5.6	5.3	4.3
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	12.40	13.87	12.77	14.18	14.50	13.48	14.94	13.84	15.25	15.57
	3H	14.10	15.41	14.48	15.74	16.11	14.56	15.87	14.94	16.20	16.56
	4H	14.76	15.99	15.16	16.34	16.71	14.97	16.19	15.37	16.54	16.92
	6H	15.26	16.40	15.67	16.76	17.16	15.28	16.41	15.69	16.78	17.17
	8H	15.43	16.51	15.86	16.90	17.30	15.41	16.49	15.84	16.88	17.28
	12H	15.56	16.59	15.99	16.97	17.40	15.53	16.56	15.96	16.95	17.37
4H	2H	13.01	14.23	13.41	14.58	14.96	13.88	15.11	14.28	15.46	15.84
	3H	14.94	15.95	15.35	16.36	16.76	15.20	16.22	15.61	16.62	17.02
	4H	15.75	16.67	16.18	17.08	17.52	15.72	16.64	16.15	17.05	17.49
	6H	16.40	17.19	16.86	17.64	18.10	16.15	16.95	16.61	17.39	17.85
	8H	16.62	17.36	17.08	17.81	18.28	16.34	17.09	16.81	17.53	18.00
	12H	16.79	17.46	17.27	17.94	18.41	16.53	17.19	17.01	17.67	18.14
8H	4H	15.99	16.73	16.45	17.18	17.64	15.97	16.71	16.43	17.16	17.62
	6H	16.78	17.39	17.27	17.88	18.36	16.51	17.13	17.01	17.62	18.10
	8H	17.09	17.64	17.60	18.15	18.64	16.79	17.34	17.31	17.85	18.34
	12H	17.36	17.85	17.87	18.34	18.90	17.08	17.57	17.59	18.06	18.63
12H	4H	16.00	16.66	16.48	17.14	17.61	15.99	16.66	16.48	17.14	17.61
	6H	16.81	17.36	17.33	17.87	18.36	16.57	17.12	17.08	17.63	18.12
	8H	17.19	17.67	17.70	18.17	18.73	16.91	17.40	17.42	17.89	18.45