

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: P1058394

Luminaire Tested: S122RDRP-H485D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058394  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H485D927-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

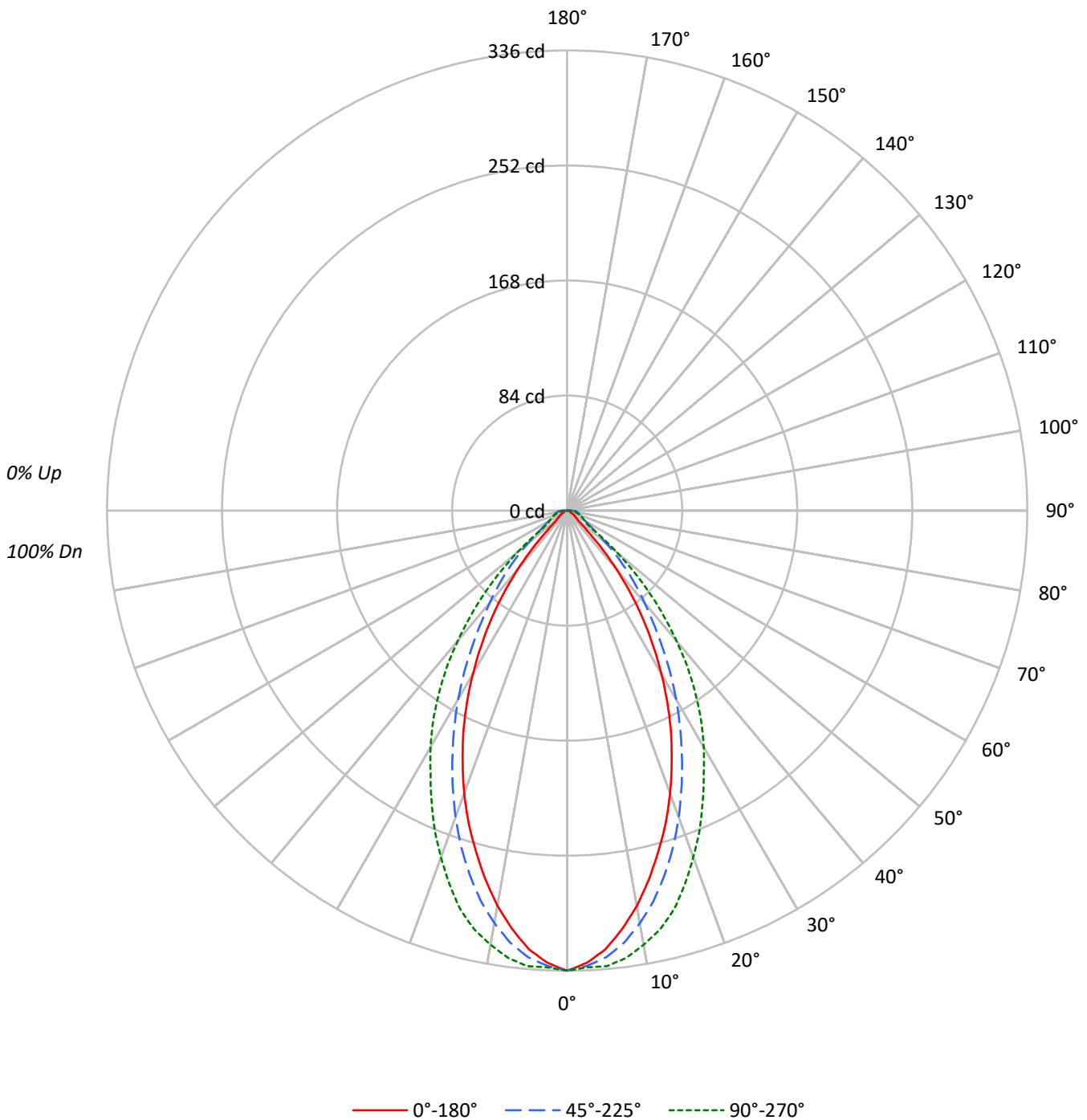
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 365.6 lumens  
Efficiency: N/A  
Efficacy: 21.0 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

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

	0°	45°	90°
0°	6198	6198	6198
5°	5953	6063	6183
10°	5488	5730	6031
15°	4917	5257	5760
20°	4316	4675	5288
25°	3655	4037	4770
30°	2932	3390	4249
35°	2167	2712	3681
40°	1359	2122	2992
45°	532	1600	2216
50°	261	1079	1358
55°	206	708	605
60°	159	576	554
65°	118	541	541
70°	146	550	550
75°	150	613	577
80°	223	797	627
85°	445	1355	910

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 2496 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.7	8.4
10°-20°	77.6	21.2
20°-30°	92.8	25.4
30°-40°	78.1	21.4
40°-50°	44.5	12.2
50°-60°	17.5	4.8
60°-70°	11.0	3.0
70°-80°	8.2	2.2
80°-90°	5.2	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°	201.0	55.0
0°-40°	279.1	76.4
0°-60°	341.1	93.3
0°-90°	365.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	365.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	336	336	336	336	336	
5°	321	328	327	331	334	30
15°	257	267	275	291	302	72
25°	180	188	198	219	234	82
35°	96	105	120	146	163	60
45°	20	36	61	77	85	19
55°	6	14	22	23	19	6
65°	3	12	12	12	12	3
75°	2	9	9	8	8	2
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	335.9	335.9	335.9	335.9	335.9
2.5°	330.5	336.5	332.7	333.2	333.8
5°	321.4	328.4	327.3	331.1	333.8
7.5°	308.0	315.5	318.2	324.6	329.5
10°	292.9	301.5	305.8	316.0	321.9
12.5°	275.7	285.4	291.8	304.7	313.3
15°	257.4	266.6	275.2	291.3	301.5
17.5°	239.2	248.3	257.4	275.2	285.9
20°	219.8	228.4	238.1	256.9	269.3
22.5°	199.4	208.5	218.2	237.6	252.6
25°	179.5	187.6	198.3	218.7	234.3
27.5°	158.6	166.6	178.4	199.4	216.1
30°	137.6	145.7	159.1	180.6	199.4
32.5°	116.6	125.2	139.7	163.4	182.2
35°	96.2	104.8	120.4	146.2	163.4
37.5°	76.3	86.0	103.2	128.5	144.6
40°	56.4	67.7	88.1	110.7	124.2
42.5°	37.6	51.6	74.2	93.0	104.3
45°	20.4	36.0	61.3	76.9	84.9
47.5°	11.3	23.1	48.9	61.3	66.1
50°	9.1	16.1	37.6	46.8	47.3
52.5°	7.5	14.5	27.9	33.3	30.6
55°	6.4	14.0	22.0	22.6	18.8
57.5°	5.4	13.4	18.3	16.1	16.1
60°	4.3	13.4	15.6	14.5	15.0
62.5°	3.2	13.4	14.0	12.9	13.4
65°	2.7	12.4	12.4	11.8	12.4
67.5°	2.7	11.3	11.3	10.7	11.3
70°	2.7	10.7	10.2	10.2	10.2
72.5°	2.1	9.7	9.7	9.1	9.1
75°	2.1	8.6	8.6	8.1	8.1
77.5°	2.1	8.1	8.1	7.5	7.0
80°	2.1	7.0	7.5	7.0	5.9
82.5°	2.1	6.4	7.0	6.4	4.8
85°	2.1	5.9	6.4	5.9	4.3
87.5°	1.6	5.9	5.9	4.8	3.2
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	5.24	4.38	5.55	5.86	6.04	7.27	6.41	7.58	7.89
	3H	5.56	6.65	5.95	6.98	7.35	8.02	9.10	8.40	9.43	9.80
	4H	6.11	7.13	6.52	7.48	7.86	8.94	9.95	9.34	10.30	10.69
	6H	6.66	7.59	7.08	7.97	8.36	9.82	10.75	10.24	11.12	11.52
	8H	6.95	7.83	7.38	8.22	8.63	10.22	11.10	10.65	11.49	11.90
	12H	7.30	8.14	7.73	8.52	8.96	10.66	11.50	11.10	11.89	12.32
4H	2H	5.21	6.22	5.62	6.58	6.96	6.67	7.68	7.08	8.03	8.42
	3H	7.41	8.25	7.83	8.65	9.06	8.91	9.75	9.33	10.15	10.56
	4H	8.46	9.21	8.90	9.63	10.08	9.99	10.74	10.43	11.16	11.60
	6H	9.36	10.01	9.82	10.45	10.92	11.10	11.75	11.57	12.20	12.66
	8H	9.74	10.34	10.21	10.79	11.26	11.62	12.22	12.09	12.67	13.14
	12H	10.15	10.68	10.63	11.17	11.64	12.19	12.73	12.68	13.21	13.69
8H	4H	9.27	9.88	9.74	10.32	10.80	10.48	11.09	10.96	11.54	12.01
	6H	10.65	11.15	11.15	11.64	12.13	11.88	12.38	12.38	12.87	13.36
	8H	11.36	11.81	11.88	12.32	12.81	12.61	13.06	13.14	13.57	14.07
	12H	12.10	12.49	12.62	12.99	13.56	13.44	13.83	13.96	14.33	14.90
12H	4H	9.43	9.97	9.92	10.45	10.93	10.58	11.12	11.07	11.60	12.08
	6H	10.98	11.43	11.51	11.94	12.44	12.10	12.54	12.62	13.06	13.55
	8H	11.89	12.28	12.40	12.78	13.35	12.97	13.37	13.49	13.86	14.44