

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: P1058434

Luminaire Tested: S122RDRP-H485D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058434  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H485D950-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

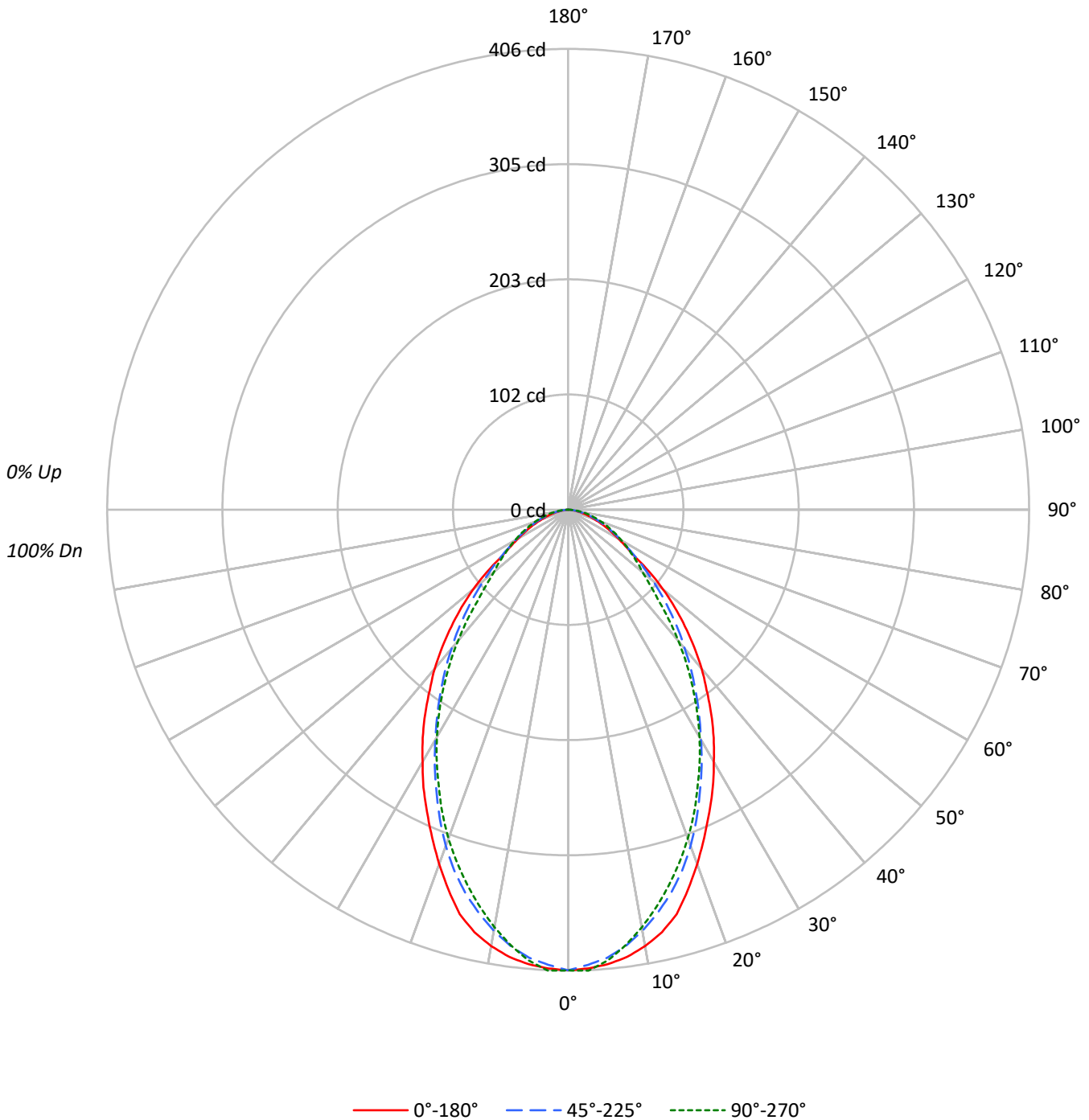
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 616.3 lumens  
Efficiency: N/A  
Efficacy: 35.4 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	7488	7488	7488
5°	7444	7337	7385
10°	7313	7058	6998
15°	7049	6679	6543
20°	6521	6191	6052
25°	5986	5591	5487
30°	5465	4984	4928
35°	4949	4411	4309
40°	4406	3844	3642
45°	3794	3306	2918
50°	3135	2782	2449
55°	2265	2307	2204
60°	1886	1978	2004
65°	1607	1720	1834
70°	1327	1532	1672
75°	1105	1290	1519
80°	829	1031	1371
85°	275	550	1228

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3794 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.5	6.1
10°-20°	98.8	16.0
20°-30°	127.8	20.7
30°-40°	125.4	20.3
40°-50°	98.7	16.0
50°-60°	64.7	10.5
60°-70°	39.4	6.4
70°-80°	19.7	3.2
80°-90°	4.2	0.7
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°	264.1	42.9
0°-40°	389.5	63.2
0°-60°	553.0	89.7
0°-90°	616.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	616.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	406	406	406	406	406	
5°	402	402	396	399	399	38
15°	369	364	350	345	342	103
25°	294	284	275	273	270	135
35°	220	207	196	195	191	137
45°	145	136	127	118	112	112
55°	70	74	72	69	68	67
65°	37	38	39	41	42	37
75°	16	16	18	21	21	17
85°	1	2	3	4	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	405.8	405.8	405.8	405.8	405.8
2.5°	404.5	405.2	401.3	405.2	406.5
5°	401.9	401.9	396.1	398.7	398.7
7.5°	397.4	396.8	387.7	387.7	387.1
10°	390.3	387.7	376.7	374.8	373.5
12.5°	381.3	376.7	363.8	360.6	358.6
15°	369.0	363.8	349.6	345.1	342.5
17.5°	350.9	345.7	333.4	328.3	325.7
20°	332.1	324.4	315.3	310.8	308.2
22.5°	312.8	303.7	295.3	292.1	289.5
25°	294.0	284.3	274.6	273.3	269.5
27.5°	275.9	264.3	254.6	254.0	250.7
30°	256.5	244.3	233.9	234.6	231.3
32.5°	238.4	226.8	214.5	215.2	211.3
35°	219.7	207.4	195.8	195.2	191.3
37.5°	200.3	188.7	177.7	175.1	171.2
40°	182.9	171.2	159.6	155.1	151.2
42.5°	164.1	153.8	143.5	136.3	131.2
45°	145.4	136.3	126.7	117.6	111.8
47.5°	127.3	120.2	111.8	100.8	96.9
50°	109.2	104.0	96.9	87.2	85.3
52.5°	90.5	88.5	84.0	77.5	76.9
55°	70.4	74.3	71.7	69.1	68.5
57.5°	59.5	60.1	62.0	61.4	61.4
60°	51.1	51.1	53.6	54.3	54.3
62.5°	43.3	43.9	46.5	47.8	47.8
65°	36.8	37.5	39.4	41.4	42.0
67.5°	30.4	31.7	33.6	35.5	36.2
70°	24.6	25.8	28.4	30.4	31.0
72.5°	20.0	20.7	23.3	25.2	25.8
75°	15.5	16.2	18.1	20.7	21.3
77.5°	11.0	12.3	14.2	16.2	17.4
80°	7.8	8.4	9.7	12.3	12.9
82.5°	4.5	5.2	6.5	8.4	9.0
85°	1.3	1.9	2.6	4.5	5.8
87.5°	0.0	0.0	0.0	1.3	2.6
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	13.12	14.52	13.48	14.83	15.14	13.30	14.69	13.66	15.01	15.32
	3H	14.25	15.50	14.63	15.83	16.19	14.76	16.00	15.14	16.33	16.69
	4H	14.60	15.77	15.01	16.12	16.50	15.30	16.46	15.70	16.81	17.19
	6H	14.79	15.86	15.20	16.23	16.62	15.71	16.78	16.12	17.15	17.54
	8H	14.82	15.83	15.25	16.22	16.63	15.84	16.85	16.27	17.24	17.65
	12H	14.80	15.77	15.23	16.16	16.59	15.92	16.89	16.35	17.27	17.70
4H	2H	13.58	14.74	13.98	15.09	15.47	13.72	14.89	14.13	15.24	15.62
	3H	14.92	15.87	15.33	16.28	16.68	15.40	16.35	15.81	16.76	17.16
	4H	15.36	16.22	15.80	16.64	17.08	16.06	16.92	16.50	17.34	17.78
	6H	15.63	16.38	16.09	16.82	17.29	16.59	17.34	17.06	17.78	18.25
	8H	15.68	16.37	16.15	16.82	17.29	16.76	17.46	17.23	17.90	18.37
	12H	15.67	16.29	16.16	16.77	17.24	16.88	17.50	17.37	17.98	18.45
8H	4H	15.58	16.27	16.04	16.71	17.18	16.21	16.90	16.68	17.35	17.82
	6H	15.92	16.49	16.42	16.99	17.47	16.84	17.41	17.34	17.91	18.38
	8H	16.00	16.51	16.52	17.03	17.52	17.07	17.58	17.59	18.10	18.59
	12H	16.02	16.47	16.53	16.96	17.53	17.26	17.71	17.77	18.20	18.77
12H	4H	15.59	16.20	16.07	16.68	17.16	16.20	16.81	16.68	17.29	17.77
	6H	15.95	16.46	16.47	16.97	17.46	16.84	17.35	17.35	17.86	18.35
	8H	16.07	16.51	16.58	17.01	17.58	17.11	17.56	17.62	18.05	18.62