

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058511

Luminaire Tested: S122RDR-H675D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058511  
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: S122RDR-H675D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

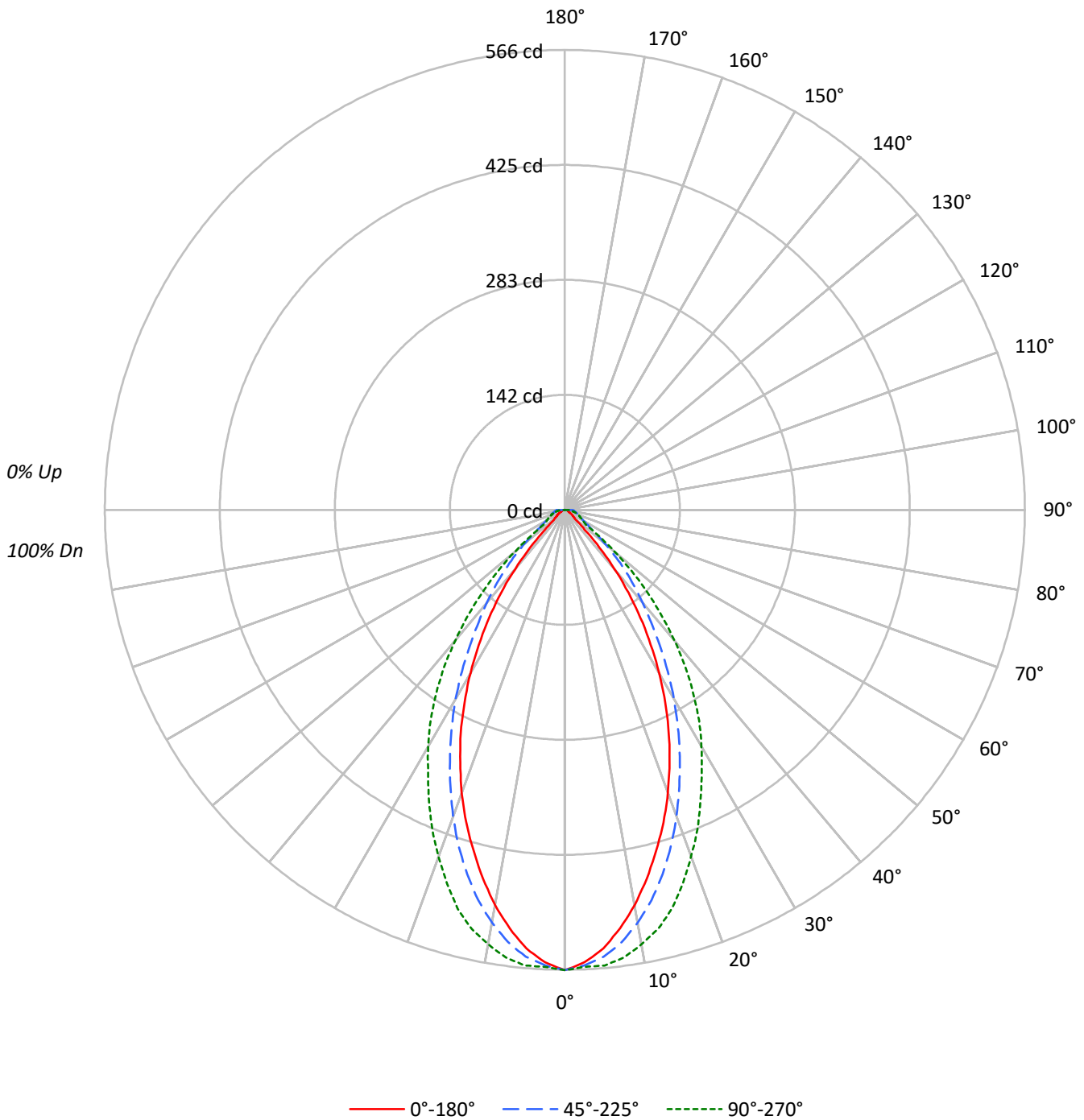
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 616.6 lumens  
Efficiency: N/A  
Efficacy: 26.2 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): 23.5  
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	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°	10453	10453	10453
5°	10041	10225	10427
10°	9256	9665	10174
15°	8295	8866	9714
20°	7279	7886	8917
25°	6165	6810	8046
30°	4945	5717	7166
35°	3656	4573	6208
40°	2293	3582	5044
45°	898	2696	3737
50°	442	1823	2291
55°	351	1197	1020
60°	269	971	937
65°	196	908	908
70°	243	928	928
75°	257	1034	970
80°	383	1350	1063
85°	762	2308	1546

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 4230 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.7	8.4
10°-20°	130.8	21.2
20°-30°	156.5	25.4
30°-40°	131.7	21.4
40°-50°	75.0	12.2
50°-60°	29.6	4.8
60°-70°	18.6	3.0
70°-80°	13.8	2.2
80°-90°	8.8	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°	339.1	55.0
0°-40°	470.8	76.3
0°-60°	575.4	93.3
0°-90°	616.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	616.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	542	554	552	558	563	50
15°	434	450	464	491	508	121
25°	303	316	334	369	395	138
35°	162	177	203	247	276	101
45°	34	61	103	130	143	32
55°	11	24	37	38	32	10
65°	4	21	21	20	21	5
75°	4	14	14	14	14	4
85°	4	10	11	10	7	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	566.5	566.5	566.5	566.5	566.5
2.5°	557.5	567.4	561.1	562.0	562.9
5°	542.1	553.9	552.0	558.4	562.9
7.5°	519.4	532.1	536.6	547.5	555.7
10°	494.0	508.5	515.8	533.0	543.0
12.5°	465.0	481.3	492.2	514.0	528.5
15°	434.2	449.6	464.1	491.3	508.5
17.5°	403.4	418.8	434.2	464.1	482.2
20°	370.7	385.2	401.6	433.3	454.1
22.5°	336.3	351.7	368.0	400.7	426.0
25°	302.8	316.4	334.5	368.9	395.2
27.5°	267.4	281.0	300.9	336.3	364.4
30°	232.1	245.7	268.3	304.6	336.3
32.5°	196.7	211.2	235.7	275.6	307.3
35°	162.3	176.8	203.0	246.6	275.6
37.5°	128.7	145.0	174.0	216.6	243.8
40°	95.2	114.2	148.7	186.7	209.4
42.5°	63.5	87.0	125.1	156.8	175.9
45°	34.4	60.7	103.3	129.6	143.2
47.5°	19.0	39.0	82.5	103.3	111.5
50°	15.4	27.2	63.5	78.9	79.8
52.5°	12.7	24.5	47.1	56.2	51.7
55°	10.9	23.6	37.2	38.1	31.7
57.5°	9.1	22.7	30.8	27.2	27.2
60°	7.3	22.7	26.3	24.5	25.4
62.5°	5.4	22.7	23.6	21.8	22.7
65°	4.5	20.8	20.8	19.9	20.8
67.5°	4.5	19.0	19.0	18.1	19.0
70°	4.5	18.1	17.2	17.2	17.2
72.5°	3.6	16.3	16.3	15.4	15.4
75°	3.6	14.5	14.5	13.6	13.6
77.5°	3.6	13.6	13.6	12.7	11.8
80°	3.6	11.8	12.7	11.8	10.0
82.5°	3.6	10.9	11.8	10.9	8.2
85°	3.6	10.0	10.9	10.0	7.3
87.5°	2.7	10.0	10.0	8.2	5.4
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	5.86	7.08	6.22	7.39	7.71	7.87	9.09	8.24	9.41	9.72
	3H	7.39	8.48	7.77	8.81	9.17	9.84	10.92	10.22	11.26	11.62
	4H	7.94	8.95	8.35	9.31	9.69	10.75	11.77	11.16	12.12	12.50
	6H	8.50	9.43	8.91	9.80	10.19	11.64	12.57	12.06	12.94	13.34
	8H	8.79	9.67	9.22	10.06	10.47	12.05	12.93	12.48	13.32	13.73
	12H	9.15	9.99	9.58	10.37	10.80	12.50	13.34	12.93	13.72	14.15
4H	2H	7.04	8.05	7.44	8.40	8.78	8.49	9.50	8.89	9.85	10.24
	3H	9.23	10.06	9.64	10.47	10.87	10.73	11.56	11.14	11.97	12.37
	4H	10.28	11.03	10.72	11.45	11.89	11.80	12.55	12.24	12.97	13.42
	6H	11.18	11.82	11.64	12.27	12.74	12.92	13.56	13.38	14.01	14.48
	8H	11.56	12.17	12.03	12.61	13.09	13.44	14.05	13.91	14.50	14.97
	12H	11.98	12.51	12.47	13.00	13.47	14.03	14.56	14.51	15.04	15.52
8H	4H	11.08	11.69	11.55	12.14	12.61	12.29	12.90	12.77	13.35	13.82
	6H	12.47	12.96	12.97	13.46	13.94	13.70	14.19	14.20	14.69	15.17
	8H	13.19	13.63	13.71	14.15	14.64	14.44	14.89	14.96	15.40	15.90
	12H	13.94	14.33	14.46	14.83	15.40	15.28	15.67	15.79	16.17	16.74
12H	4H	11.25	11.78	11.73	12.27	12.74	12.40	12.93	12.88	13.41	13.89
	6H	12.80	13.25	13.32	13.76	14.25	13.91	14.36	14.44	14.88	15.37
	8H	13.72	14.11	14.23	14.61	15.18	14.80	15.20	15.32	15.69	16.27