

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: P1058187

Luminaire Tested: S122RDRP-S865D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058187  
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-S865D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

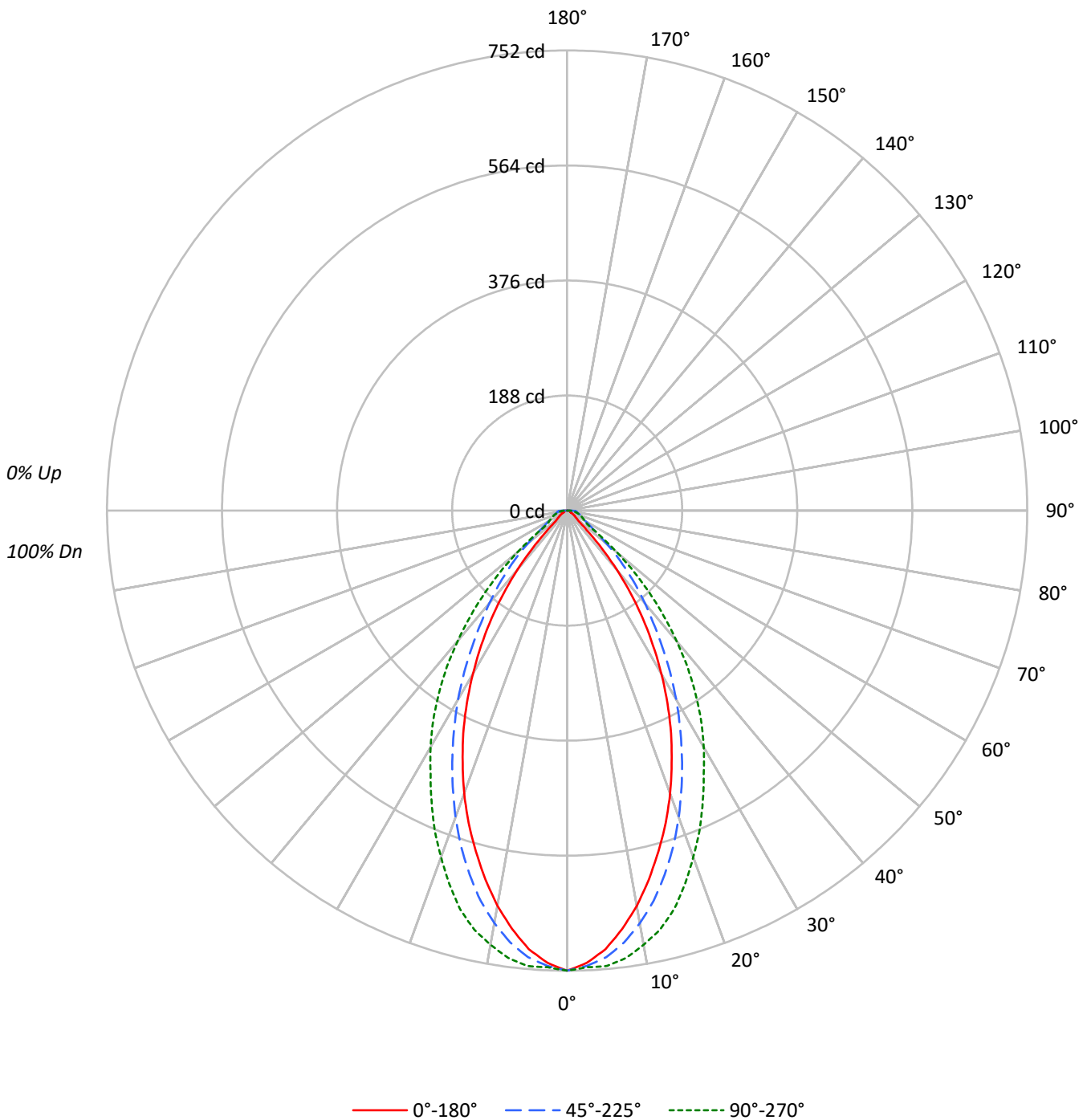
Lumens per Lamp: N/A  
Luminaire Lumens: 818.3 lumens  
Efficiency: N/A  
Efficacy: 23.4 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				42

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

	0°	45°	90°
0°	13873	13873	13873
5°	13324	13570	13837
10°	12284	12826	13500
15°	11007	11766	12891
20°	9661	10464	11835
25°	8181	9038	10679
30°	6560	7587	9509
35°	4850	6071	8238
40°	3042	4753	6694
45°	1193	3578	4961
50°	586	2417	3040
55°	463	1586	1354
60°	354	1288	1244
65°	262	1209	1209
70°	324	1235	1235
75°	342	1369	1283
80°	510	1785	1403
85°	1016	3049	2032

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 5584 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.7	8.4
10°-20°	173.6	21.2
20°-30°	207.7	25.4
30°-40°	174.8	21.4
40°-50°	99.5	12.2
50°-60°	39.3	4.8
60°-70°	24.7	3.0
70°-80°	18.3	2.2
80°-90°	11.7	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°	450.0	55.0
0°-40°	624.8	76.3
0°-60°	763.5	93.3
0°-90°	818.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	818.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	719	735	733	741	747	67
15°	576	597	616	652	675	161
25°	402	420	444	490	524	183
35°	215	235	270	327	366	134
45°	46	81	137	172	190	43
55°	14	31	49	50	42	13
65°	6	28	28	26	28	7
75°	5	19	19	18	18	5
85°	5	13	14	13	10	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	751.8	751.8	751.8	751.8	751.8
2.5°	739.8	753.0	744.6	745.8	747.0
5°	719.3	735.0	732.6	741.0	747.0
7.5°	689.3	706.1	712.1	726.6	737.4
10°	655.6	674.8	684.5	707.3	720.5
12.5°	617.1	638.7	653.2	682.1	701.3
15°	576.2	596.6	615.9	652.0	674.8
17.5°	535.3	555.7	576.2	615.9	640.0
20°	492.0	511.2	532.9	575.0	602.7
22.5°	446.3	466.7	488.4	531.7	565.4
25°	401.8	419.8	443.9	489.6	524.5
27.5°	354.9	372.9	399.4	446.3	483.6
30°	307.9	326.0	356.1	404.2	446.3
32.5°	261.0	280.3	312.8	365.7	407.8
35°	215.3	234.6	269.5	327.2	365.7
37.5°	170.8	192.5	231.0	287.5	323.6
40°	126.3	151.6	197.3	247.8	277.9
42.5°	84.2	115.5	166.0	208.1	233.4
45°	45.7	80.6	137.1	172.0	190.1
47.5°	25.3	51.7	109.5	137.1	148.0
50°	20.4	36.1	84.2	104.7	105.9
52.5°	16.8	32.5	62.6	74.6	68.6
55°	14.4	31.3	49.3	50.5	42.1
57.5°	12.0	30.1	40.9	36.1	36.1
60°	9.6	30.1	34.9	32.5	33.7
62.5°	7.2	30.1	31.3	28.9	30.1
65°	6.0	27.7	27.7	26.5	27.7
67.5°	6.0	25.3	25.3	24.1	25.3
70°	6.0	24.1	22.9	22.9	22.9
72.5°	4.8	21.7	21.7	20.4	20.4
75°	4.8	19.2	19.2	18.0	18.0
77.5°	4.8	18.0	18.0	16.8	15.6
80°	4.8	15.6	16.8	15.6	13.2
82.5°	4.8	14.4	15.6	14.4	10.8
85°	4.8	13.2	14.4	13.2	9.6
87.5°	3.6	13.2	13.2	10.8	7.2
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	6.83	8.05	7.20	8.37	8.68	8.86	10.08	9.22	10.39	10.70
	3H	8.38	9.46	8.76	9.79	10.16	10.83	11.92	11.21	12.25	12.62
	4H	8.93	9.94	9.33	10.29	10.68	11.74	12.75	12.15	13.11	13.49
	6H	9.48	10.41	9.90	10.79	11.18	12.62	13.55	13.04	13.92	14.32
	8H	9.78	10.66	10.21	11.05	11.45	13.02	13.90	13.45	14.29	14.70
	12H	10.14	10.98	10.57	11.36	11.79	13.46	14.31	13.90	14.69	15.12
4H	2H	8.02	9.03	8.42	9.38	9.77	9.48	10.49	9.88	10.84	11.22
	3H	10.22	11.06	10.64	11.46	11.87	11.73	12.56	12.14	12.96	13.37
	4H	11.27	12.02	11.71	12.44	12.88	12.79	13.54	13.23	13.96	14.40
	6H	12.16	12.81	12.63	13.26	13.72	13.89	14.54	14.36	14.99	15.46
	8H	12.54	13.15	13.02	13.60	14.07	14.42	15.02	14.89	15.47	15.94
	12H	12.96	13.50	13.45	13.98	14.46	14.99	15.53	15.48	16.01	16.48
8H	4H	12.07	12.67	12.54	13.12	13.59	13.28	13.89	13.75	14.33	14.81
	6H	13.45	13.94	13.95	14.44	14.92	14.67	15.17	15.18	15.67	16.15
	8H	14.16	14.61	14.69	15.12	15.62	15.41	15.86	15.93	16.37	16.86
	12H	14.91	15.31	15.43	15.80	16.37	16.24	16.63	16.76	17.13	17.70
12H	4H	12.23	12.76	12.72	13.25	13.72	13.38	13.91	13.87	14.40	14.87
	6H	13.77	14.22	14.30	14.74	15.23	14.89	15.33	15.41	15.85	16.34
	8H	14.69	15.08	15.20	15.58	16.15	15.77	16.17	16.29	16.66	17.23