

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: P1058146

Luminaire Tested: S122RDR-S865D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058146  
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: S122RDR-S865D850-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

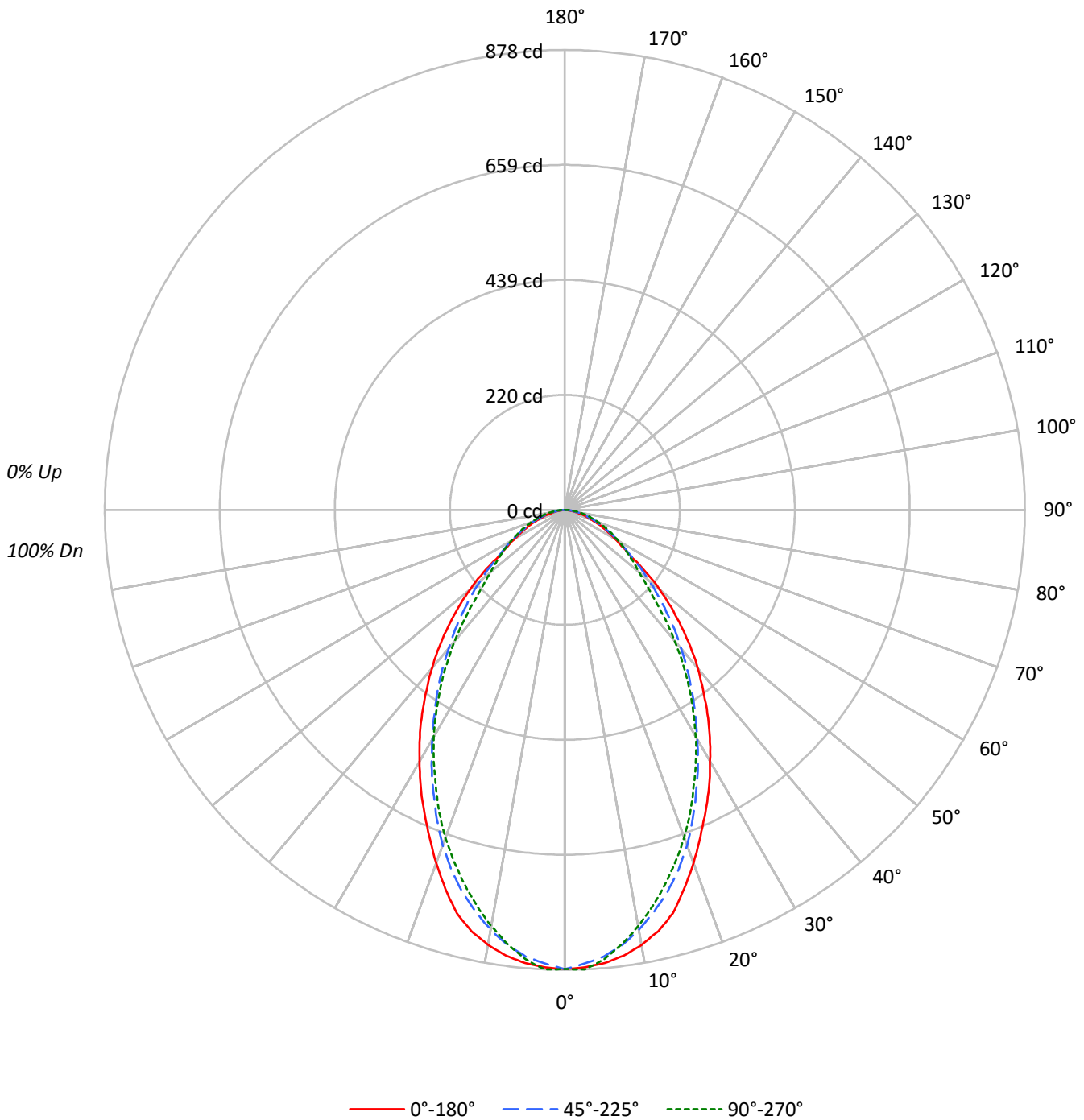
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1331.5 lumens  
Efficiency: N/A  
Efficacy: 38.0 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): 35  
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

TEST NUMBER: P1058146

CATALOG NUMBER: S122RDR-S865D850-X4F0-XX-UDD-WVL-B

### 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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

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

	0°	45°	90°
0°	16179	16179	16179
5°	16085	15852	15956
10°	15799	15250	15119
15°	15229	14429	14135
20°	14091	13378	13076
25°	12933	12080	11854
30°	11811	10769	10649
35°	10693	9529	9308
40°	9517	8306	7870
45°	8197	7140	6302
50°	6772	6011	5291
55°	4896	4986	4761
60°	4071	4277	4329
65°	3476	3720	3960
70°	2865	3313	3615
75°	2388	2788	3287
80°	1785	2221	2965
85°	593	1186	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8197 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.0	6.1
10°-20°	213.4	16.0
20°-30°	276.2	20.7
30°-40°	270.9	20.3
40°-50°	213.3	16.0
50°-60°	139.8	10.5
60°-70°	85.1	6.4
70°-80°	42.5	3.2
80°-90°	9.2	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°	570.7	42.9
0°-40°	841.6	63.2
0°-60°	1194.7	89.7
0°-90°	1331.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	868	868	856	861	861	82
15°	797	786	755	746	740	222
25°	635	614	593	591	582	292
35°	475	448	423	422	413	296
45°	314	295	274	254	242	242
55°	152	161	155	149	148	144
65°	80	81	85	89	91	79
75°	34	35	39	45	46	36
85°	3	4	6	10	13	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	876.8	876.8	876.8	876.8	876.8
2.5°	874.0	875.4	867.0	875.4	878.1
5°	868.4	868.4	855.8	861.4	861.4
7.5°	858.6	857.2	837.7	837.7	836.3
10°	843.2	837.7	813.9	809.7	806.9
12.5°	823.7	813.9	786.0	779.0	774.8
15°	797.2	786.0	755.3	745.5	739.9
17.5°	758.1	746.9	720.4	709.2	703.6
20°	717.6	700.8	681.3	671.5	665.9
22.5°	675.7	656.2	638.0	631.0	625.5
25°	635.2	614.3	593.3	590.6	582.2
27.5°	596.1	571.0	550.1	548.7	541.7
30°	554.3	527.7	505.4	506.8	499.8
32.5°	515.2	490.0	463.5	464.9	456.5
35°	474.7	448.1	423.0	421.6	413.2
37.5°	432.8	407.7	383.9	378.3	370.0
40°	395.1	370.0	344.8	335.1	326.7
42.5°	354.6	332.3	309.9	294.6	283.4
45°	314.1	294.6	273.6	254.1	241.5
47.5°	275.0	259.7	241.5	217.8	209.4
50°	235.9	224.8	209.4	188.5	184.3
52.5°	195.5	191.3	181.5	167.5	166.1
55°	152.2	160.6	155.0	149.4	148.0
57.5°	128.4	129.8	134.0	132.6	132.6
60°	110.3	110.3	115.9	117.3	117.3
62.5°	93.5	94.9	100.5	103.3	103.3
65°	79.6	81.0	85.2	89.4	90.7
67.5°	65.6	68.4	72.6	76.8	78.2
70°	53.1	55.8	61.4	65.6	67.0
72.5°	43.3	44.7	50.3	54.4	55.8
75°	33.5	34.9	39.1	44.7	46.1
77.5°	23.7	26.5	30.7	34.9	37.7
80°	16.8	18.1	20.9	26.5	27.9
82.5°	9.8	11.2	14.0	18.1	19.5
85°	2.8	4.2	5.6	9.8	12.6
87.5°	0.0	0.0	0.0	2.8	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)