

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: P1058141

Luminaire Tested: S122RDR-S865D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058141
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S865D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

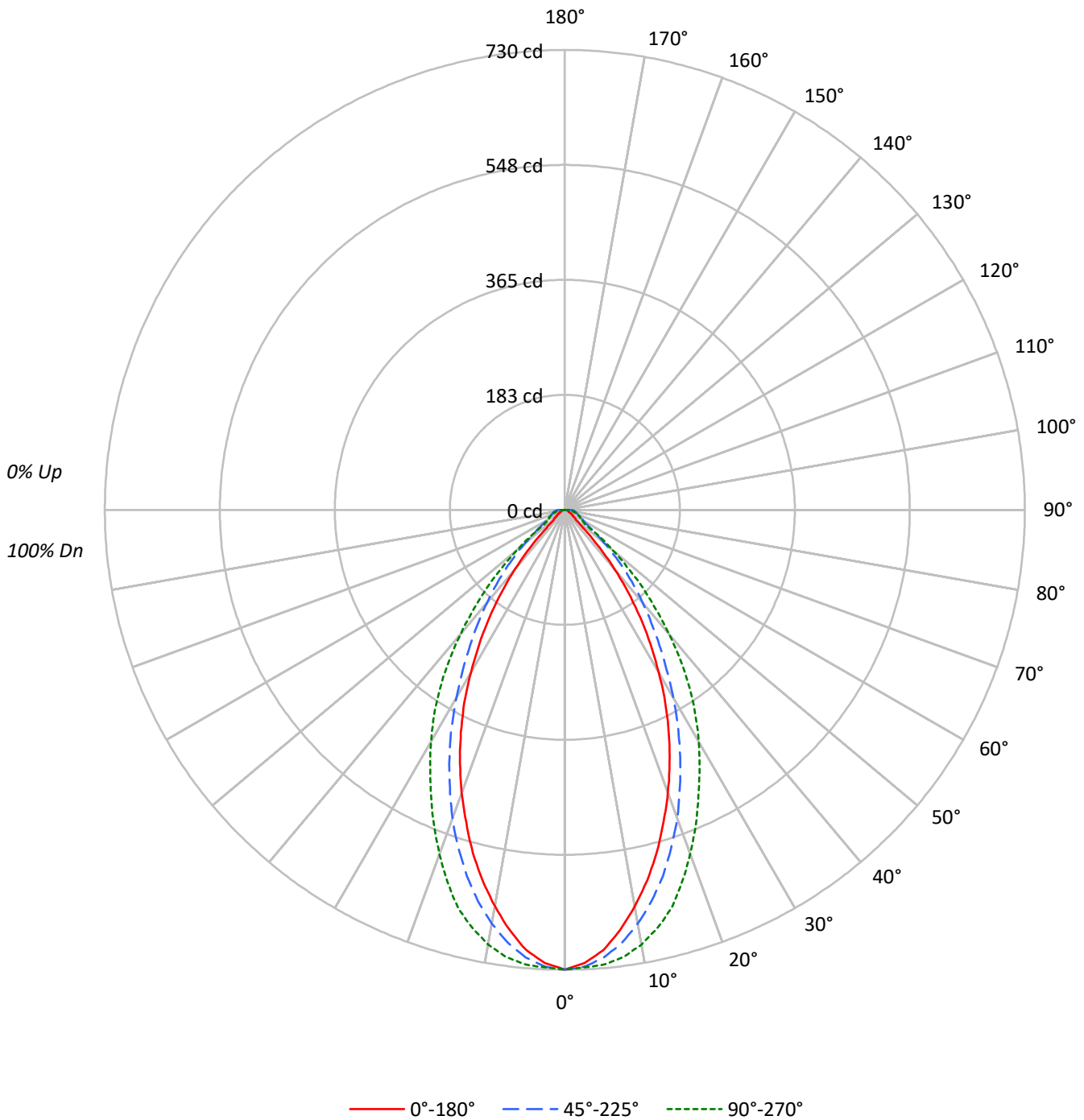
Lumens per Lamp: N/A
Luminaire Lumens: 786.7 lumens
Efficiency: N/A
Efficacy: 22.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058141

CATALOG NUMBER: S122RDR-S865D850-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1058141

CATALOG NUMBER: S122RDR-S865D850-X4F0-XX-UDD-BVL-S

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				
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	77	82	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	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	56				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13467	13467	13467
5°	12999	13207	13414
10°	11971	12496	13123
15°	10763	11485	12499
20°	9388	10241	11421
25°	7942	8824	10219
30°	6345	7328	9056
35°	4692	5888	7778
40°	2963	4613	6195
45°	1166	3466	4562
50°	603	2328	2810
55°	495	1528	1258
60°	362	1240	1137
65°	306	1161	1161
70°	302	1209	1133
75°	399	1397	1198
80°	595	1785	1339
85°	889	2964	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 5922 cd/sqm



TEST NUMBER: P1058141

CATALOG NUMBER: S122RDR-S865D850-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	8.5
10°-20°	168.6	21.4
20°-30°	200.4	25.5
30°-40°	166.7	21.2
40°-50°	93.1	11.8
50°-60°	37.6	4.8
60°-70°	24.1	3.1
70°-80°	18.1	2.3
80°-90°	11.5	1.5
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°	435.7	55.4
0°-40°	602.4	76.6
0°-60°	733.1	93.2
0°-90°	786.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	786.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	702	714	713	719	724	65
15°	563	580	601	632	654	157
25°	390	405	433	467	502	178
35°	208	228	261	305	345	129
45°	45	76	133	155	175	42
55°	15	32	48	46	39	13
65°	7	28	27	25	27	7
75°	6	20	20	18	17	6
85°	4	13	14	13	8	5
90°	0	0	0	0	0	



TEST NUMBER: P1058141

CATALOG NUMBER: S122RDR-S865D850-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.8	729.8	729.8	729.8	729.8
2.5°	720.0	731.2	725.6	725.6	727.0
5°	701.8	714.4	713.0	718.6	724.2
7.5°	672.5	686.4	693.4	706.0	715.8
10°	638.9	654.3	666.9	686.4	700.4
12.5°	602.6	617.9	636.1	661.3	679.5
15°	563.4	580.2	601.2	631.9	654.3
17.5°	520.1	538.3	562.0	595.6	619.3
20°	478.1	496.3	521.5	555.0	581.6
22.5°	434.8	450.2	476.7	510.3	542.4
25°	390.1	405.4	433.4	467.0	501.9
27.5°	345.3	360.7	388.7	423.6	462.8
30°	297.8	314.6	343.9	383.1	425.0
32.5°	253.0	269.8	300.6	343.9	385.9
35°	208.3	227.9	261.4	304.8	345.3
37.5°	165.0	187.3	225.1	265.6	302.0
40°	123.0	146.8	191.5	226.5	257.2
42.5°	81.1	109.0	160.8	190.1	213.9
45°	44.7	75.5	132.8	155.2	174.8
47.5°	25.2	48.9	104.9	123.0	134.2
50°	21.0	36.3	81.1	93.7	97.9
52.5°	16.8	33.6	61.5	68.5	65.7
55°	15.4	32.2	47.5	46.1	39.1
57.5°	12.6	32.2	37.7	33.6	33.6
60°	9.8	30.8	33.6	29.4	30.8
62.5°	8.4	29.4	30.8	28.0	28.0
65°	7.0	28.0	26.6	25.2	26.6
67.5°	5.6	25.2	25.2	23.8	23.8
70°	5.6	23.8	22.4	21.0	21.0
72.5°	5.6	21.0	21.0	19.6	19.6
75°	5.6	19.6	19.6	18.2	16.8
77.5°	5.6	16.8	18.2	16.8	15.4
80°	5.6	15.4	16.8	15.4	12.6
82.5°	5.6	14.0	15.4	14.0	11.2
85°	4.2	12.6	14.0	12.6	8.4
87.5°	4.2	12.6	14.0	11.2	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)