

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: P1058141

Luminaire Tested: S122RDRP-S865D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S122RDRP-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

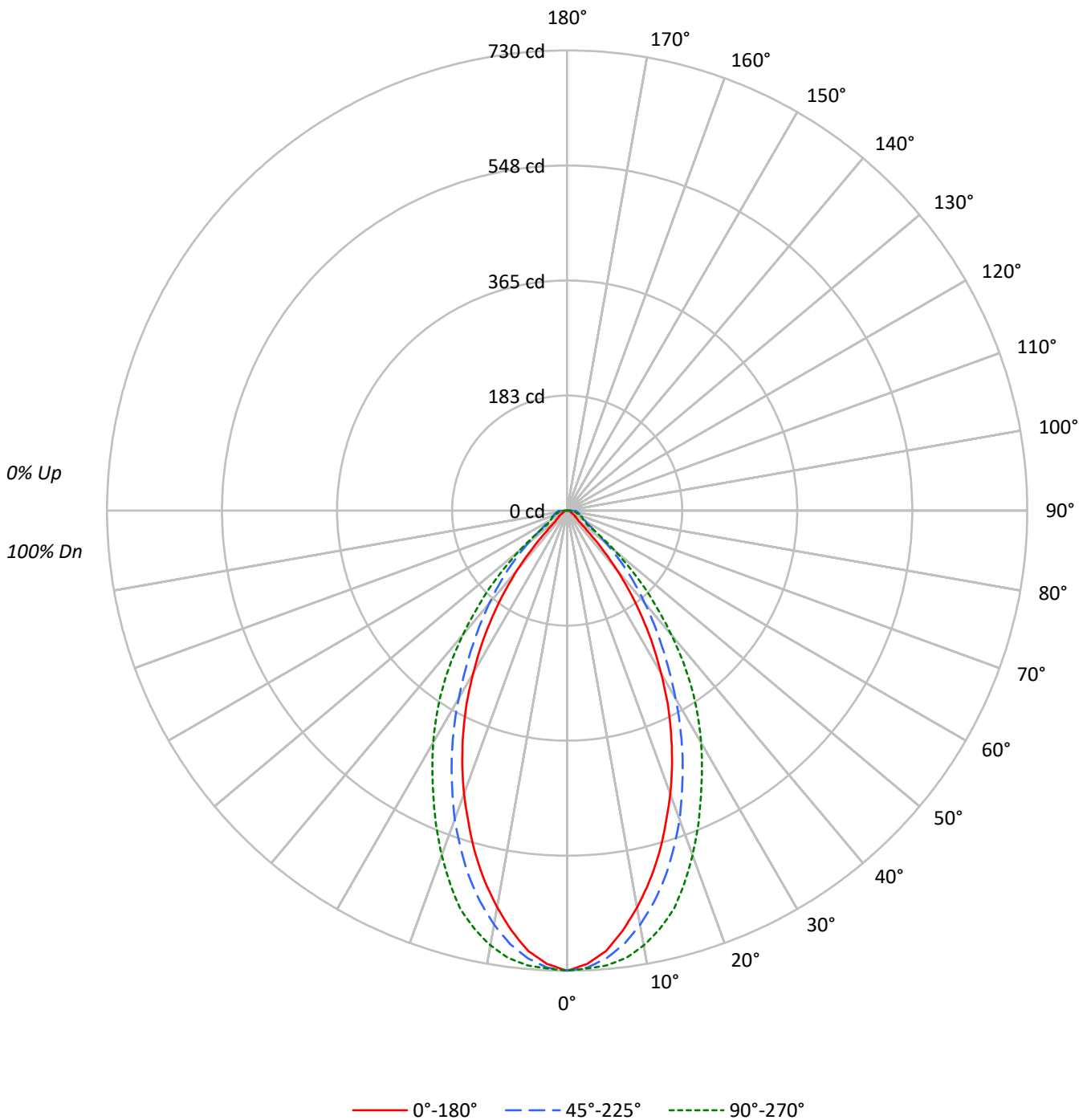
Lumens per Lamp: N/A
Luminaire Lumens: 786.7 lumens
Efficiency: N/A
Efficacy: 22.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	77	82	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	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	56				56
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	60	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				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



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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	



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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



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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	7.41	8.63	7.77	8.94	9.26	8.48	9.70	8.85	10.01	10.33
	3H	8.74	9.83	9.12	10.16	10.52	10.51	11.60	10.89	11.93	12.29
	4H	9.32	10.33	9.72	10.68	11.06	11.47	12.48	11.87	12.83	13.22
	6H	9.88	10.81	10.30	11.18	11.58	12.42	13.34	12.83	13.72	14.11
	8H	10.21	11.09	10.64	11.48	11.88	12.86	13.74	13.30	14.14	14.54
	12H	10.51	11.35	10.95	11.74	12.17	13.29	14.13	13.72	14.51	14.94
4H	2H	8.37	9.38	8.78	9.73	10.12	9.16	10.17	9.56	10.52	10.91
	3H	10.40	11.23	10.81	11.64	12.04	11.44	12.28	11.86	12.68	13.09
	4H	11.48	12.23	11.92	12.65	13.09	12.59	13.34	13.03	13.76	14.20
	6H	12.35	13.00	12.82	13.45	13.91	13.76	14.41	14.23	14.86	15.33
	8H	12.76	13.37	13.23	13.82	14.29	14.32	14.93	14.79	15.38	15.85
	12H	13.14	13.68	13.63	14.16	14.64	14.87	15.40	15.36	15.89	16.36
8H	4H	12.25	12.86	12.72	13.30	13.78	13.14	13.75	13.61	14.20	14.67
	6H	13.59	14.09	14.10	14.59	15.07	14.60	15.09	15.10	15.59	16.07
	8H	14.31	14.75	14.83	15.27	15.76	15.36	15.81	15.88	16.32	16.82
	12H	15.00	15.39	15.52	15.89	16.46	16.15	16.54	16.66	17.04	17.61
12H	4H	12.41	12.94	12.89	13.43	13.90	13.25	13.78	13.74	14.27	14.74
	6H	13.91	14.36	14.44	14.88	15.37	14.82	15.27	15.35	15.79	16.28
	8H	14.82	15.21	15.33	15.70	16.28	15.73	16.12	16.25	16.62	17.19