

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: P1058145

Luminaire Tested: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058145
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

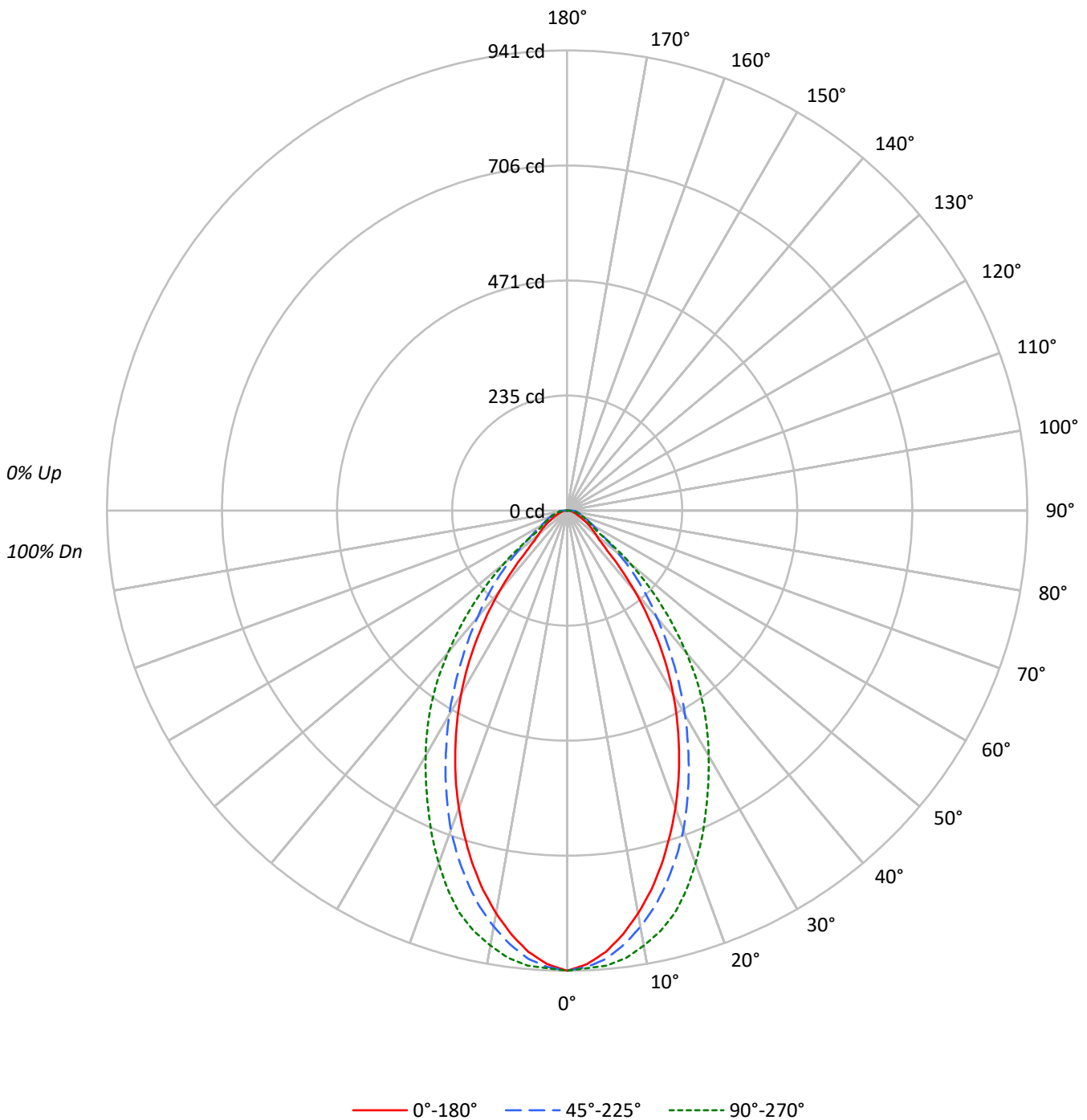
Lumens per Lamp: N/A
Luminaire Lumens: 1141.3 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1058145

CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot



TEST NUMBER: P1058145

CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W

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	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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65					65			
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59					59			
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54					54			
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46					46			
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42					42			
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17362	17362	17362
5°	16780	17039	17299
10°	15664	16189	16921
15°	14289	15036	16265
20°	12711	13644	15071
25°	11015	11984	13692
30°	9234	10276	12333
35°	7274	8504	10928
40°	5186	6870	9127
45°	3064	5436	7077
50°	2208	3933	4817
55°	1843	2834	2429
60°	1495	2270	2063
65°	1223	2013	1891
70°	1057	1958	1813
75°	998	1996	1797
80°	1041	2380	1934
85°	1482	3853	2371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7077 cd/sqm



TEST NUMBER: P1058145

CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	7.6
10°-20°	221.7	19.4
20°-30°	273.5	24.0
30°-40°	243.3	21.3
40°-50°	155.3	13.6
50°-60°	74.6	6.5
60°-70°	43.7	3.8
70°-80°	28.0	2.5
80°-90°	14.9	1.3
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°	581.5	51.0
0°-40°	824.8	72.3
0°-60°	1054.6	92.4
0°-90°	1141.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1141.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	941	941	941	941	941	
5°	906	923	920	926	934	84
15°	748	766	787	824	851	209
25°	541	562	589	630	672	248
35°	323	348	378	435	485	201
45°	117	152	208	242	271	99
55°	57	74	88	85	76	52
65°	28	50	46	42	43	28
75°	14	31	28	27	25	15
85°	7	17	18	15	11	7
90°	0	0	0	0	0	



TEST NUMBER: P1058145

CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	940.9	940.9	940.9	940.9	940.9
2.5°	928.3	943.7	933.9	933.9	936.7
5°	905.9	922.7	919.9	925.5	933.9
7.5°	873.8	892.0	894.8	910.1	922.7
10°	836.0	855.6	864.0	886.4	903.1
12.5°	794.1	813.7	829.0	857.0	880.8
15°	748.0	766.1	787.1	823.5	851.4
17.5°	697.6	721.4	742.4	780.1	812.3
20°	647.3	669.7	694.8	731.2	767.5
22.5°	595.6	616.5	641.7	679.5	721.4
25°	541.0	562.0	588.6	630.5	672.5
27.5°	487.9	508.9	534.1	580.2	624.9
30°	433.4	454.4	482.3	529.9	578.8
32.5°	378.9	401.2	429.2	480.9	532.7
35°	322.9	348.1	377.5	434.8	485.1
37.5°	268.4	293.6	329.9	385.9	433.4
40°	215.3	244.7	285.2	335.5	378.9
42.5°	163.6	195.7	246.1	286.6	324.3
45°	117.4	152.4	208.3	241.9	271.2
47.5°	89.5	114.6	172.0	198.5	219.5
50°	76.9	92.3	137.0	156.6	167.8
52.5°	67.1	81.1	109.0	118.8	118.8
55°	57.3	74.1	88.1	85.3	75.5
57.5°	48.9	67.1	72.7	61.5	64.3
60°	40.5	61.5	61.5	54.5	55.9
62.5°	33.6	57.3	53.1	47.5	48.9
65°	28.0	50.3	46.1	41.9	43.3
67.5°	22.4	44.7	40.5	37.7	37.7
70°	19.6	40.5	36.3	33.6	33.6
72.5°	16.8	35.0	32.2	29.4	29.4
75°	14.0	30.8	28.0	26.6	25.2
77.5°	12.6	26.6	25.2	22.4	21.0
80°	9.8	22.4	22.4	21.0	18.2
82.5°	8.4	19.6	19.6	18.2	15.4
85°	7.0	16.8	18.2	15.4	11.2
87.5°	5.6	15.4	15.4	12.6	8.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058145

CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-SVL-W

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	11.59	12.86	11.95	13.18	13.49	11.38	12.65	11.74	12.97	13.28
	3H	12.82	13.95	13.20	14.28	14.65	12.97	14.10	13.35	14.43	14.80
	4H	13.27	14.33	13.68	14.68	15.07	13.69	14.75	14.09	15.10	15.48
	6H	13.65	14.63	14.07	15.00	15.39	14.34	15.32	14.76	15.69	16.08
	8H	13.81	14.73	14.24	15.12	15.53	14.67	15.59	15.10	15.98	16.39
	12H	13.97	14.85	14.40	15.23	15.66	14.97	15.85	15.40	16.24	16.67
4H	2H	12.14	13.19	12.54	13.54	13.93	11.97	13.03	12.37	13.38	13.76
	3H	13.83	14.70	14.24	15.11	15.51	13.81	14.68	14.22	15.08	15.49
	4H	14.63	15.41	15.06	15.83	16.27	14.68	15.47	15.12	15.89	16.33
	6H	15.27	15.95	15.74	16.40	16.86	15.53	16.21	15.99	16.65	17.12
	8H	15.52	16.16	15.99	16.60	17.08	15.96	16.59	16.42	17.04	17.51
	12H	15.77	16.33	16.26	16.81	17.29	16.36	16.92	16.84	17.40	17.88
8H	4H	15.05	15.68	15.52	16.13	16.60	15.10	15.74	15.57	16.18	16.65
	6H	16.03	16.55	16.53	17.04	17.52	16.19	16.71	16.69	17.21	17.69
	8H	16.52	16.99	17.04	17.50	17.99	16.78	17.25	17.30	17.76	18.26
	12H	17.02	17.44	17.54	17.93	18.50	17.39	17.80	17.90	18.29	18.86
12H	4H	15.11	15.67	15.60	16.16	16.63	15.18	15.74	15.66	16.22	16.70
	6H	16.20	16.66	16.72	17.18	17.67	16.35	16.82	16.88	17.34	17.83
	8H	16.83	17.25	17.35	17.74	18.31	17.07	17.48	17.58	17.97	18.55