

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: P1058118

Luminaire Tested: S122RDRP-S865D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058118
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-S865D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

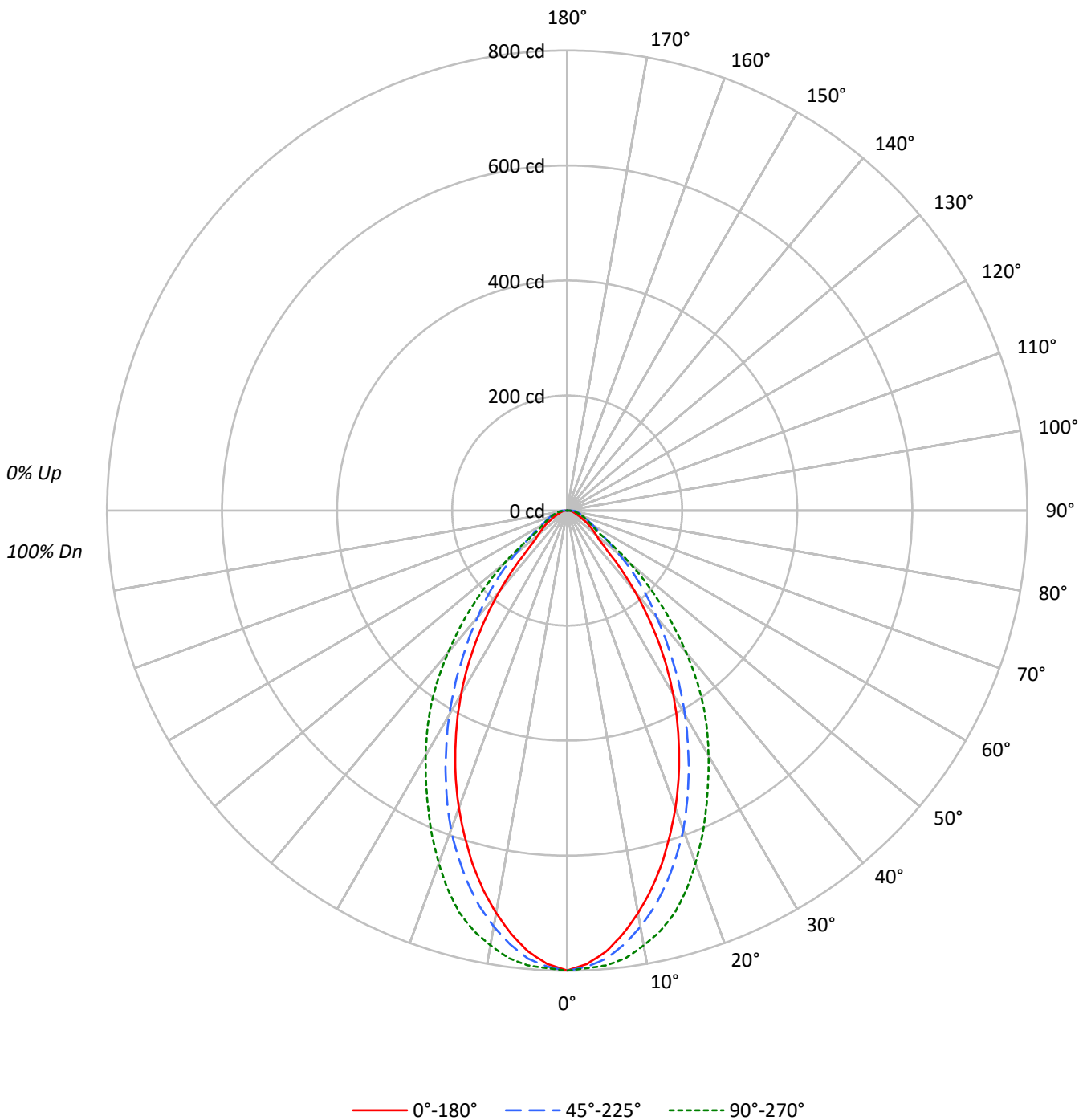
Lumens per Lamp: N/A
Luminaire Lumens: 969.9 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058118

CATALOG NUMBER: S122RDRP-S865D830-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058118

CATALOG NUMBER: S122RDRP-S865D830-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14756	14756	14756
5°	14263	14481	14702
10°	13313	13759	14383
15°	12144	12780	13823
20°	10802	11595	12809
25°	9362	10184	11636
30°	7847	8734	10481
35°	6183	7226	9288
40°	4408	5839	7756
45°	2604	4619	6015
50°	1877	3341	4094
55°	1567	2410	2065
60°	1273	1930	1753
65°	1039	1712	1607
70°	896	1667	1538
75°	848	1697	1526
80°	882	2019	1636
85°	1249	3260	2011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6015 cd/sqm



TEST NUMBER: P1058118

CATALOG NUMBER: S122RDRP-S865D830-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	7.6
10°-20°	188.4	19.4
20°-30°	232.4	24.0
30°-40°	206.8	21.3
40°-50°	132.0	13.6
50°-60°	63.4	6.5
60°-70°	37.2	3.8
70°-80°	23.8	2.4
80°-90°	12.7	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°	494.2	51.0
0°-40°	701.0	72.3
0°-60°	896.3	92.4
0°-90°	969.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	969.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	770	784	782	787	794	72
15°	636	651	669	700	724	177
25°	460	478	500	536	572	210
35°	274	296	321	370	412	171
45°	100	130	177	206	230	84
55°	49	63	75	72	64	44
65°	24	43	39	36	37	24
75°	12	26	24	23	21	13
85°	6	14	15	13	10	6
90°	0	0	0	0	0	



TEST NUMBER: P1058118

CATALOG NUMBER: S122RDRP-S865D830-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	799.7	799.7	799.7	799.7	799.7
2.5°	789.0	802.0	793.7	793.7	796.1
5°	770.0	784.2	781.8	786.6	793.7
7.5°	742.6	758.1	760.5	773.5	784.2
10°	710.5	727.2	734.3	753.3	767.6
12.5°	674.9	691.5	704.6	728.4	748.6
15°	635.7	651.1	669.0	699.9	723.6
17.5°	592.9	613.1	630.9	663.0	690.3
20°	550.1	569.2	590.5	621.4	652.3
22.5°	506.2	524.0	545.4	577.5	613.1
25°	459.8	477.7	500.2	535.9	571.5
27.5°	414.7	432.5	453.9	493.1	531.1
30°	368.3	386.2	409.9	450.3	491.9
32.5°	322.0	341.0	364.8	408.7	452.7
35°	274.5	295.9	320.8	369.5	412.3
37.5°	228.1	249.5	280.4	327.9	368.3
40°	183.0	207.9	242.4	285.2	322.0
42.5°	139.0	166.3	209.1	243.6	275.7
45°	99.8	129.5	177.0	205.6	230.5
47.5°	76.0	97.4	146.1	168.7	186.5
50°	65.4	78.4	116.4	133.1	142.6
52.5°	57.0	68.9	92.7	101.0	101.0
55°	48.7	63.0	74.9	72.5	64.2
57.5°	41.6	57.0	61.8	52.3	54.7
60°	34.5	52.3	52.3	46.3	47.5
62.5°	28.5	48.7	45.2	40.4	41.6
65°	23.8	42.8	39.2	35.6	36.8
67.5°	19.0	38.0	34.5	32.1	32.1
70°	16.6	34.5	30.9	28.5	28.5
72.5°	14.3	29.7	27.3	25.0	25.0
75°	11.9	26.1	23.8	22.6	21.4
77.5°	10.7	22.6	21.4	19.0	17.8
80°	8.3	19.0	19.0	17.8	15.4
82.5°	7.1	16.6	16.6	15.4	13.1
85°	5.9	14.3	15.4	13.1	9.5
87.5°	4.8	13.1	13.1	10.7	7.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058118

CATALOG NUMBER: S122RDRP-S865D830-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	11.02	12.30	11.39	12.61	12.92	10.82	12.09	11.18	12.40	12.72
	3H	12.25	13.39	12.63	13.72	14.08	12.41	13.54	12.79	13.87	14.24
	4H	12.71	13.76	13.11	14.12	14.50	13.13	14.18	13.53	14.53	14.92
	6H	13.09	14.06	13.50	14.43	14.82	13.77	14.75	14.19	15.12	15.51
	8H	13.24	14.16	13.67	14.55	14.96	14.10	15.03	14.53	15.42	15.82
	12H	13.40	14.28	13.83	14.66	15.09	14.40	15.28	14.84	15.67	16.10
4H	2H	11.57	12.63	11.97	12.98	13.36	11.41	12.47	11.81	12.82	13.20
	3H	13.27	14.14	13.68	14.54	14.95	13.24	14.12	13.66	14.52	14.92
	4H	14.06	14.84	14.50	15.26	15.71	14.12	14.90	14.55	15.32	15.76
	6H	14.70	15.38	15.17	15.83	16.29	14.96	15.64	15.42	16.08	16.55
	8H	14.95	15.59	15.42	16.03	16.50	15.39	16.02	15.85	16.47	16.94
	12H	15.20	15.76	15.68	16.24	16.72	15.79	16.35	16.27	16.83	17.31
8H	4H	14.48	15.11	14.95	15.56	16.03	14.54	15.17	15.01	15.62	16.09
	6H	15.46	15.98	15.96	16.47	16.95	15.62	16.14	16.12	16.64	17.12
	8H	15.95	16.41	16.47	16.93	17.42	16.21	16.68	16.73	17.19	17.68
	12H	16.45	16.86	16.96	17.36	17.93	16.81	17.23	17.33	17.72	18.29
12H	4H	14.55	15.11	15.03	15.59	16.06	14.61	15.17	15.10	15.66	16.13
	6H	15.62	16.09	16.15	16.61	17.10	15.78	16.25	16.30	16.77	17.26
	8H	16.26	16.67	16.77	17.17	17.74	16.49	16.91	17.01	17.40	17.97