

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: P1055265

Luminaire Tested: S122R3DRP-S865D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055265  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DRP-S865D927-X4F0-XX-UDD-F-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

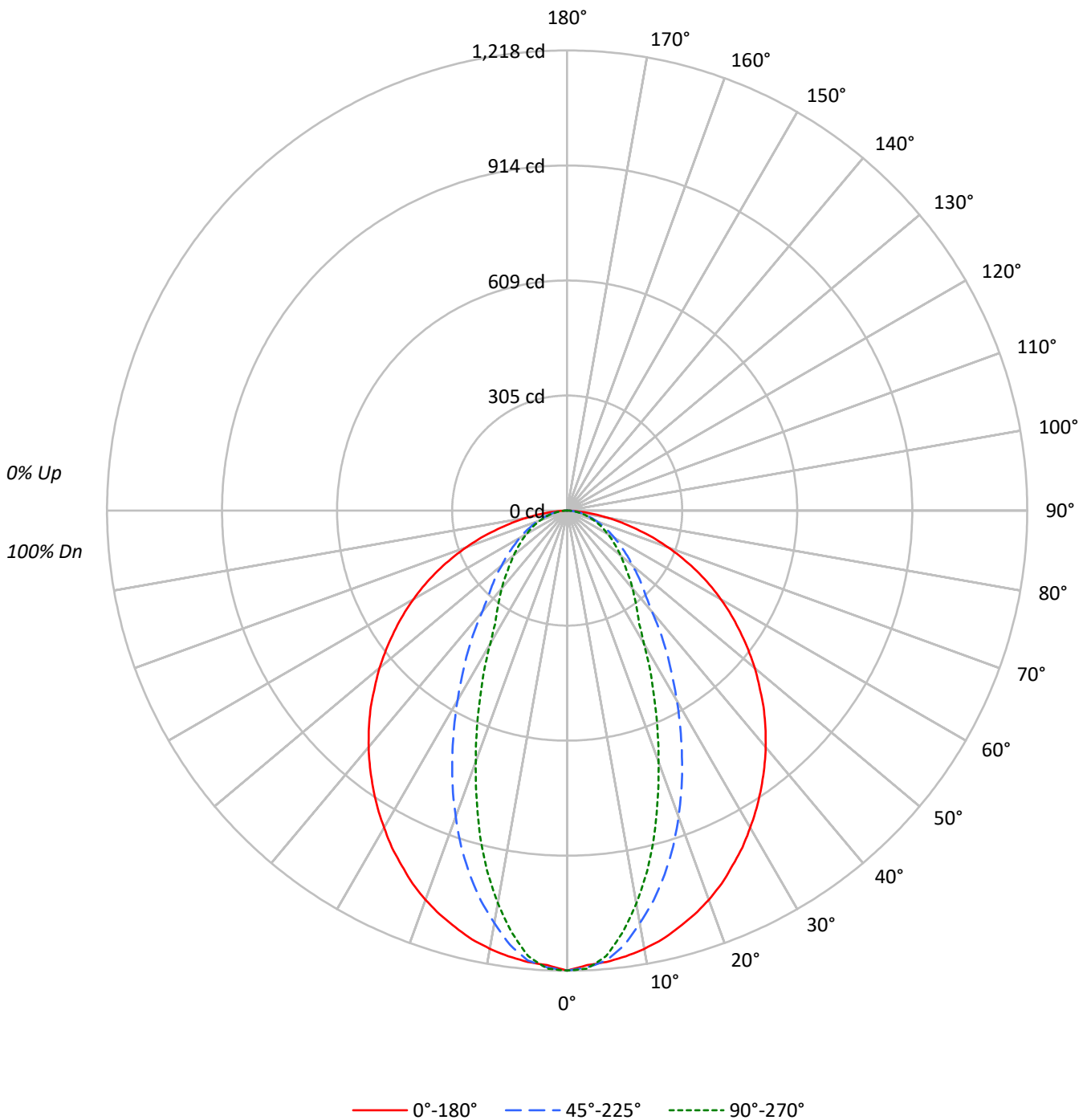
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1841.6 lumens  
Efficiency: N/A  
Efficacy: 53.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P105265

CATALOG NUMBER: S122R3DRP-S865D927-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1055265

CATALOG NUMBER: S122R3DRP-S865D927-X4F0-XX-UDD-F-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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	23067	23067	23067
5°	22807	22729	22516
10°	22659	21327	20310
15°	22403	19548	17472
20°	22105	17383	14264
25°	21663	15024	11385
30°	21201	12695	8886
35°	20719	10618	7464
40°	20218	8612	6648
45°	19693	7529	5945
50°	19114	6661	5432
55°	18461	6018	5044
60°	17820	5479	4706
65°	16977	5021	4425
70°	15732	4681	4171
75°	13937	4246	3953
80°	11882	3993	3666
85°	8195	3543	3326

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19693 cd/sqm



TEST NUMBER: P1055265

CATALOG NUMBER: S122R3DRP-S865D927-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.6	6.1
10°-20°	281.7	15.3
20°-30°	347.1	18.8
30°-40°	333.0	18.1
40°-50°	287.3	15.6
50°-60°	222.8	12.1
60°-70°	152.6	8.3
70°-80°	82.8	4.5
80°-90°	22.7	1.2
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°	740.4	40.2
0°-40°	1073.4	58.3
0°-60°	1583.5	86.0
0°-90°	1841.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1841.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1199	1216	1195	1180	1184	114
15°	1142	1108	997	915	891	322
25°	1036	925	719	586	545	478
35°	896	711	459	342	323	560
45°	735	495	281	232	222	566
55°	559	297	182	158	153	500
65°	379	162	112	102	99	374
75°	190	74	58	55	54	204
85°	38	18	16	16	15	48
90°	0	0	0	0	0	



TEST NUMBER: P1055265

CATALOG NUMBER: S122R3DRP-S865D927-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1217.5	1217.5	1217.5	1217.5	1217.5
2.5°	1204.3	1224.7	1210.4	1210.4	1213.5
5°	1199.2	1216.5	1195.1	1179.9	1183.9
7.5°	1190.0	1202.3	1159.5	1126.9	1125.9
10°	1177.8	1178.8	1108.6	1065.9	1055.7
12.5°	1162.6	1146.3	1056.7	992.6	977.3
15°	1142.2	1107.6	996.6	915.2	890.8
17.5°	1120.8	1067.9	932.5	830.7	797.1
20°	1096.4	1020.0	862.2	746.2	707.5
22.5°	1068.9	974.2	792.0	664.8	624.0
25°	1036.3	925.4	718.7	586.4	544.6
27.5°	1004.8	875.5	648.5	517.1	474.4
30°	969.1	821.5	580.3	451.0	406.2
32.5°	933.5	766.6	517.1	387.9	354.3
35°	895.8	710.6	459.1	342.0	322.7
37.5°	857.2	655.6	404.1	311.5	294.2
40°	817.5	600.6	348.2	282.0	268.8
42.5°	776.7	546.7	309.5	257.6	245.3
45°	735.0	494.8	281.0	232.1	221.9
47.5°	690.2	442.8	253.5	210.7	201.6
50°	648.5	392.9	226.0	191.4	184.3
52.5°	603.7	344.1	203.6	174.1	168.0
55°	558.9	297.3	182.2	157.8	152.7
57.5°	515.1	252.5	161.9	142.5	138.4
60°	470.3	216.8	144.6	128.3	124.2
62.5°	424.5	188.3	128.3	115.0	111.0
65°	378.7	161.9	112.0	101.8	98.7
67.5°	330.9	136.4	97.7	89.6	87.5
70°	284.0	114.0	84.5	77.4	75.3
72.5°	238.2	92.6	71.3	66.2	64.1
75°	190.4	74.3	58.0	55.0	54.0
77.5°	148.6	58.0	46.8	44.8	43.8
80°	108.9	42.8	36.6	34.6	33.6
82.5°	72.3	29.5	26.5	25.5	24.4
85°	37.7	18.3	16.3	16.3	15.3
87.5°	12.2	8.1	8.1	8.1	7.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1055265  
 CATALOG NUMBER: S122R3DRP-S865D927-X4F0-XX-UDD-F-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	20.51	21.98	20.88	22.29	22.61	15.32	16.79	15.68	17.10	17.41
	3H	22.84	24.16	23.22	24.49	24.85	16.96	18.28	17.34	18.61	18.97
	4H	23.74	24.97	24.14	25.32	25.70	17.60	18.84	18.00	19.18	19.56
	6H	24.40	25.54	24.81	25.91	26.30	18.10	19.23	18.51	19.60	19.99
	8H	24.61	25.69	25.04	26.08	26.48	18.26	19.35	18.69	19.74	20.14
	12H	24.72	25.76	25.15	26.14	26.57	18.38	19.42	18.81	19.80	20.23
4H	2H	20.53	21.76	20.93	22.11	22.49	16.03	17.27	16.43	17.62	18.00
	3H	22.94	23.97	23.35	24.37	24.77	17.88	18.91	18.29	19.31	19.71
	4H	23.87	24.79	24.30	25.21	25.65	18.63	19.55	19.06	19.97	20.41
	6H	24.65	25.45	25.11	25.89	26.35	19.24	20.05	19.70	20.49	20.95
	8H	24.92	25.67	25.38	26.11	26.58	19.46	20.21	19.93	20.65	21.12
	12H	25.10	25.76	25.58	26.24	26.72	19.62	20.29	20.11	20.77	21.24
8H	4H	23.86	24.61	24.33	25.06	25.53	19.01	19.76	19.47	20.20	20.67
	6H	24.67	25.29	25.17	25.78	26.26	19.75	20.36	20.24	20.86	21.33
	8H	24.97	25.53	25.49	26.04	26.53	20.04	20.60	20.56	21.11	21.60
	12H	25.20	25.69	25.71	26.19	26.75	20.29	20.77	20.80	21.27	21.83
12H	4H	23.84	24.51	24.33	24.99	25.46	19.07	19.73	19.55	20.21	20.68
	6H	24.65	25.20	25.16	25.71	26.20	19.83	20.39	20.35	20.90	21.39
	8H	24.98	25.47	25.49	25.96	26.53	20.19	20.68	20.70	21.17	21.74