

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: P1055205

Luminaire Tested: S122R3DR-S485D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055205  
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: S122R3DR-S485D840-X4F0-XX-UDD-FLL-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

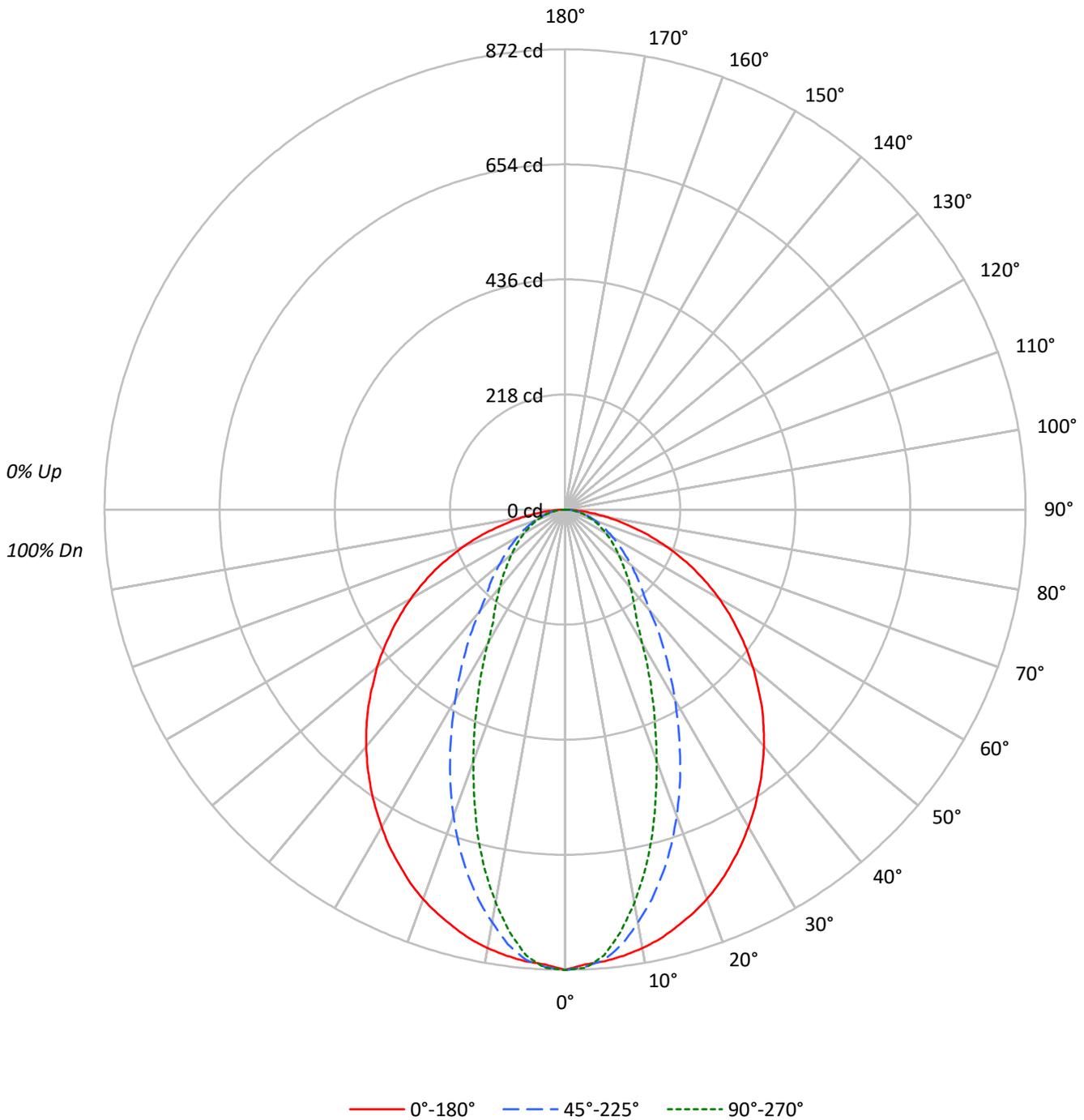
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1319.3 lumens  
Efficiency: N/A  
Efficacy: 69.1 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): 19.1  
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: P1055205

CATALOG NUMBER: S122R3DR-S485D840-X4F0-XX-UDD-FLL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1055205

CATALOG NUMBER: S122R3DR-S485D840-X4F0-XX-UDD-FLL-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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				32

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

	0°	45°	90°
0°	16525	16525	16525
5°	16339	16283	16129
10°	16233	15279	14550
15°	16048	14005	12516
20°	15835	12454	10218
25°	15519	10764	8157
30°	15189	9094	6366
35°	14844	7607	5347
40°	14483	6168	4761
45°	14107	5394	4260
50°	13691	4772	3891
55°	13226	4311	3614
60°	12766	3926	3372
65°	12162	3595	3169
70°	11273	3351	2991
75°	9985	3045	2833
80°	8510	2869	2629
85°	5869	2543	2369

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14107 cd/sqm



TEST NUMBER: P1055205

CATALOG NUMBER: S122R3DR-S485D840-X4F0-XX-UDD-FLL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.9	6.1
10°-20°	201.8	15.3
20°-30°	248.7	18.8
30°-40°	238.6	18.1
40°-50°	205.8	15.6
50°-60°	159.6	12.1
60°-70°	109.3	8.3
70°-80°	59.4	4.5
80°-90°	16.3	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°	530.4	40.2
0°-40°	768.9	58.3
0°-60°	1134.3	86.0
0°-90°	1319.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1319.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	859	872	856	845	848	82
15°	818	793	714	656	638	231
25°	742	663	515	420	390	342
35°	642	509	329	245	231	401
45°	526	354	201	166	159	406
55°	400	213	130	113	109	358
65°	271	116	80	73	71	268
75°	136	53	42	39	39	146
85°	27	13	12	12	11	34
90°	0	0	0	0	0	



TEST NUMBER: P1055205

CATALOG NUMBER: S122R3DR-S485D840-X4F0-XX-UDD-FLL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	872.2	872.2	872.2	872.2	872.2
2.5°	862.7	877.3	867.1	867.1	869.3
5°	859.1	871.5	856.2	845.2	848.1
7.5°	852.5	861.3	830.6	807.3	806.6
10°	843.8	844.5	794.2	763.5	756.3
12.5°	832.8	821.2	757.0	711.0	700.1
15°	818.2	793.4	714.0	655.6	638.1
17.5°	802.9	765.0	668.0	595.1	571.0
20°	785.4	730.7	617.7	534.6	506.8
22.5°	765.7	697.9	567.4	476.2	447.0
25°	742.4	662.9	514.9	420.1	390.2
27.5°	719.8	627.2	464.5	370.5	339.8
30°	694.3	588.5	415.7	323.1	291.0
32.5°	668.7	549.1	370.5	277.9	253.8
35°	641.8	509.0	328.9	245.0	231.2
37.5°	614.0	469.6	289.5	223.2	210.8
40°	585.6	430.3	249.4	202.0	192.5
42.5°	556.4	391.6	221.7	184.5	175.8
45°	526.5	354.4	201.3	166.3	159.0
47.5°	494.4	317.2	181.6	151.0	144.4
50°	464.5	281.5	161.9	137.1	132.0
52.5°	432.5	246.5	145.9	124.7	120.3
55°	400.4	212.9	130.5	113.0	109.4
57.5°	369.0	180.9	116.0	102.1	99.2
60°	336.9	155.3	103.6	91.9	89.0
62.5°	304.1	134.9	91.9	82.4	79.5
65°	271.3	116.0	80.2	72.9	70.7
67.5°	237.0	97.7	70.0	64.2	62.7
70°	203.5	81.7	60.5	55.4	54.0
72.5°	170.6	66.4	51.0	47.4	45.9
75°	136.4	53.2	41.6	39.4	38.7
77.5°	106.5	41.6	33.5	32.1	31.4
80°	78.0	30.6	26.3	24.8	24.1
82.5°	51.8	21.1	19.0	18.2	17.5
85°	27.0	13.1	11.7	11.7	10.9
87.5°	8.8	5.8	5.8	5.8	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)