

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: P1055214

Luminaire Tested: S122R3DR-S485D930-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055214
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-S485D930-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

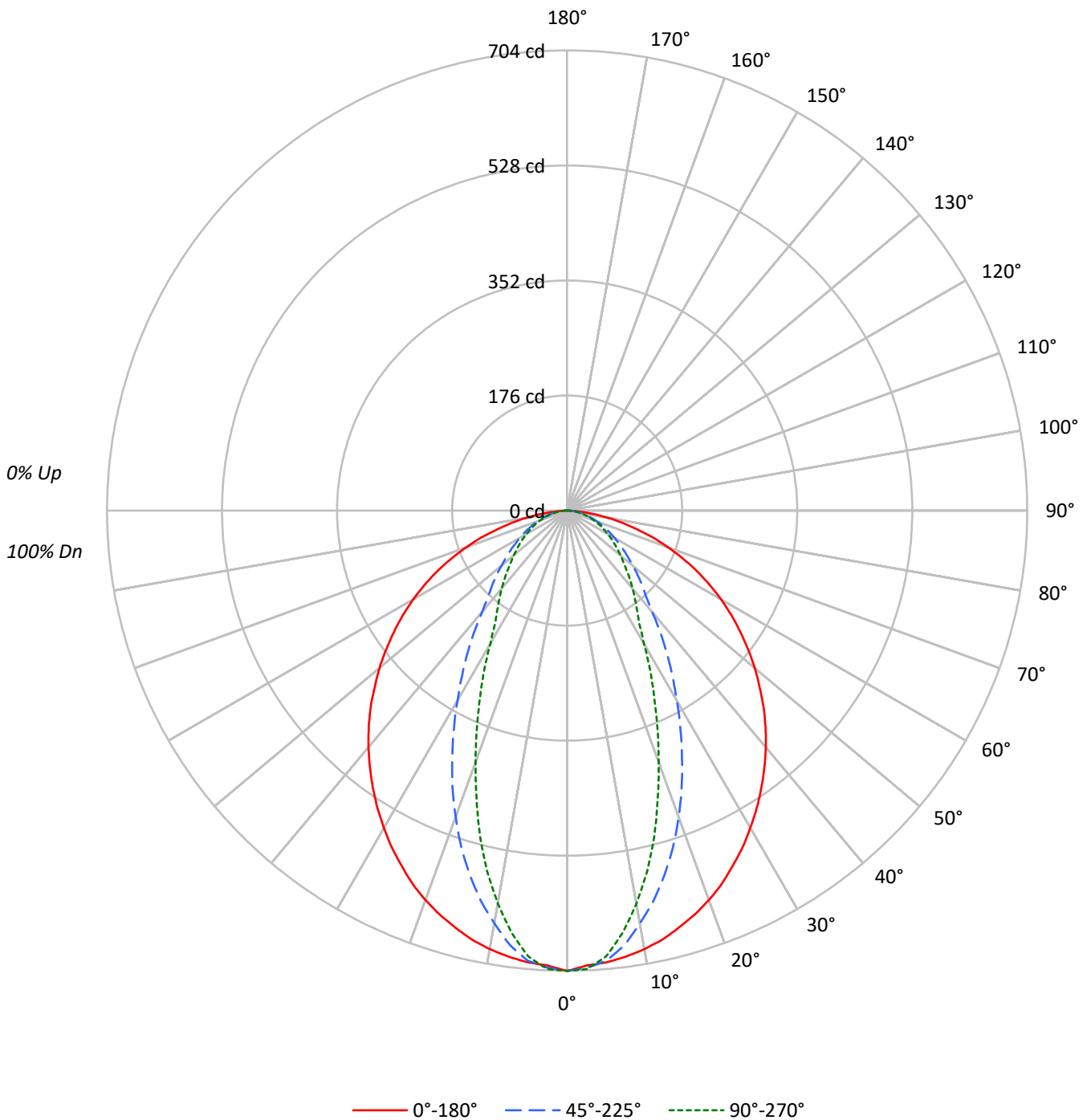
Lumens per Lamp: N/A
Luminaire Lumens: 1065.1 lumens
Efficiency: N/A
Efficacy: 55.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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: P1055214

CATALOG NUMBER: S122R3DR-S485D930-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P1055214

CATALOG NUMBER: S122R3DR-S485D930-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°	13342	13342	13342
5°	13191	13145	13022
10°	13105	12335	11745
15°	12957	11306	10105
20°	12785	10055	8250
25°	12530	8690	6585
30°	12262	7342	5139
35°	11983	6141	4316
40°	11693	4981	3843
45°	11390	4354	3440
50°	11053	3852	3142
55°	10676	3481	2917
60°	10307	3168	2721
65°	9818	2905	2560
70°	9101	2709	2415
75°	8059	2460	2284
80°	6874	2313	2117
85°	4739	2043	1913

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11390 cd/sqm



TEST NUMBER: P1055214

CATALOG NUMBER: S122R3DR-S485D930-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	6.1
10°-20°	162.9	15.3
20°-30°	200.7	18.8
30°-40°	192.6	18.1
40°-50°	166.1	15.6
50°-60°	128.9	12.1
60°-70°	88.2	8.3
70°-80°	47.9	4.5
80°-90°	13.1	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°	428.2	40.2
0°-40°	620.8	58.3
0°-60°	915.8	86.0
0°-90°	1065.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1065.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	694	704	691	682	685	66
15°	661	641	576	529	515	186
25°	599	535	416	339	315	276
35°	518	411	266	198	187	324
45°	425	286	162	134	128	328
55°	323	172	105	91	88	289
65°	219	94	65	59	57	216
75°	110	43	34	32	31	118
85°	22	11	9	9	9	28
90°	0	0	0	0	0	



TEST NUMBER: P1055214

CATALOG NUMBER: S122R3DR-S485D930-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.2	704.2	704.2	704.2	704.2
2.5°	696.5	708.3	700.0	700.0	701.8
5°	693.6	703.6	691.2	682.4	684.7
7.5°	688.3	695.3	670.6	651.8	651.2
10°	681.2	681.8	641.2	616.4	610.5
12.5°	672.4	662.9	611.1	574.0	565.2
15°	660.6	640.6	576.4	529.3	515.2
17.5°	648.2	617.6	539.3	480.4	461.0
20°	634.1	589.9	498.7	431.6	409.2
22.5°	618.2	563.4	458.1	384.5	360.9
25°	599.4	535.2	415.7	339.1	315.0
27.5°	581.1	506.3	375.0	299.1	274.4
30°	560.5	475.1	335.6	260.8	234.9
32.5°	539.9	443.3	299.1	224.3	204.9
35°	518.1	411.0	265.5	197.8	186.6
37.5°	495.7	379.2	233.7	180.2	170.2
40°	472.8	347.4	201.4	163.1	155.4
42.5°	449.2	316.2	179.0	149.0	141.9
45°	425.1	286.1	162.5	134.2	128.4
47.5°	399.2	256.1	146.6	121.9	116.6
50°	375.0	227.3	130.7	110.7	106.6
52.5°	349.1	199.0	117.8	100.7	97.1
55°	323.2	171.9	105.4	91.3	88.3
57.5°	297.9	146.0	93.6	82.4	80.1
60°	272.0	125.4	83.6	74.2	71.8
62.5°	245.5	108.9	74.2	66.5	64.2
65°	219.0	93.6	64.8	58.9	57.1
67.5°	191.3	78.9	56.5	51.8	50.6
70°	164.3	65.9	48.9	44.7	43.6
72.5°	137.8	53.6	41.2	38.3	37.1
75°	110.1	43.0	33.6	31.8	31.2
77.5°	86.0	33.6	27.1	25.9	25.3
80°	63.0	24.7	21.2	20.0	19.4
82.5°	41.8	17.1	15.3	14.7	14.1
85°	21.8	10.6	9.4	9.4	8.8
87.5°	7.1	4.7	4.7	4.7	4.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1055214
 CATALOG NUMBER: S122R3DR-S485D930-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	18.61	20.08	18.97	20.39	20.71	13.41	14.88	13.78	15.20	15.51
	3H	20.94	22.26	21.32	22.58	22.95	15.06	16.38	15.44	16.71	17.07
	4H	21.84	23.07	22.24	23.42	23.80	15.70	16.93	16.10	17.28	17.66
	6H	22.50	23.64	22.91	24.01	24.40	16.19	17.33	16.60	17.70	18.09
	8H	22.71	23.79	23.13	24.18	24.58	16.36	17.44	16.79	17.83	18.24
	12H	22.82	23.86	23.25	24.24	24.67	16.48	17.51	16.91	17.90	18.33
4H	2H	18.63	19.86	19.03	20.21	20.59	14.13	15.37	14.53	15.71	16.09
	3H	21.04	22.06	21.45	22.46	22.87	15.98	17.00	16.39	17.40	17.81
	4H	21.97	22.89	22.40	23.31	23.75	16.73	17.65	17.16	18.07	18.50
	6H	22.75	23.55	23.20	23.99	24.45	17.34	18.14	17.80	18.59	19.05
	8H	23.02	23.77	23.48	24.21	24.68	17.56	18.30	18.02	18.75	19.22
	12H	23.19	23.86	23.68	24.34	24.81	17.72	18.38	18.20	18.86	19.34
8H	4H	21.96	22.71	22.43	23.16	23.62	17.11	17.85	17.57	18.30	18.77
	6H	22.77	23.39	23.27	23.88	24.36	17.84	18.46	18.34	18.95	19.43
	8H	23.07	23.63	23.59	24.14	24.63	18.14	18.69	18.65	19.20	19.69
	12H	23.30	23.79	23.81	24.28	24.85	18.38	18.87	18.89	19.36	19.93
12H	4H	21.94	22.61	22.43	23.09	23.56	17.16	17.83	17.65	18.31	18.78
	6H	22.74	23.30	23.26	23.81	24.30	17.93	18.48	18.44	18.99	19.48
	8H	23.08	23.57	23.59	24.06	24.63	18.28	18.77	18.79	19.26	19.83