

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: P1055293

Luminaire Tested: S122R3DR-H1005D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-H1005D930-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

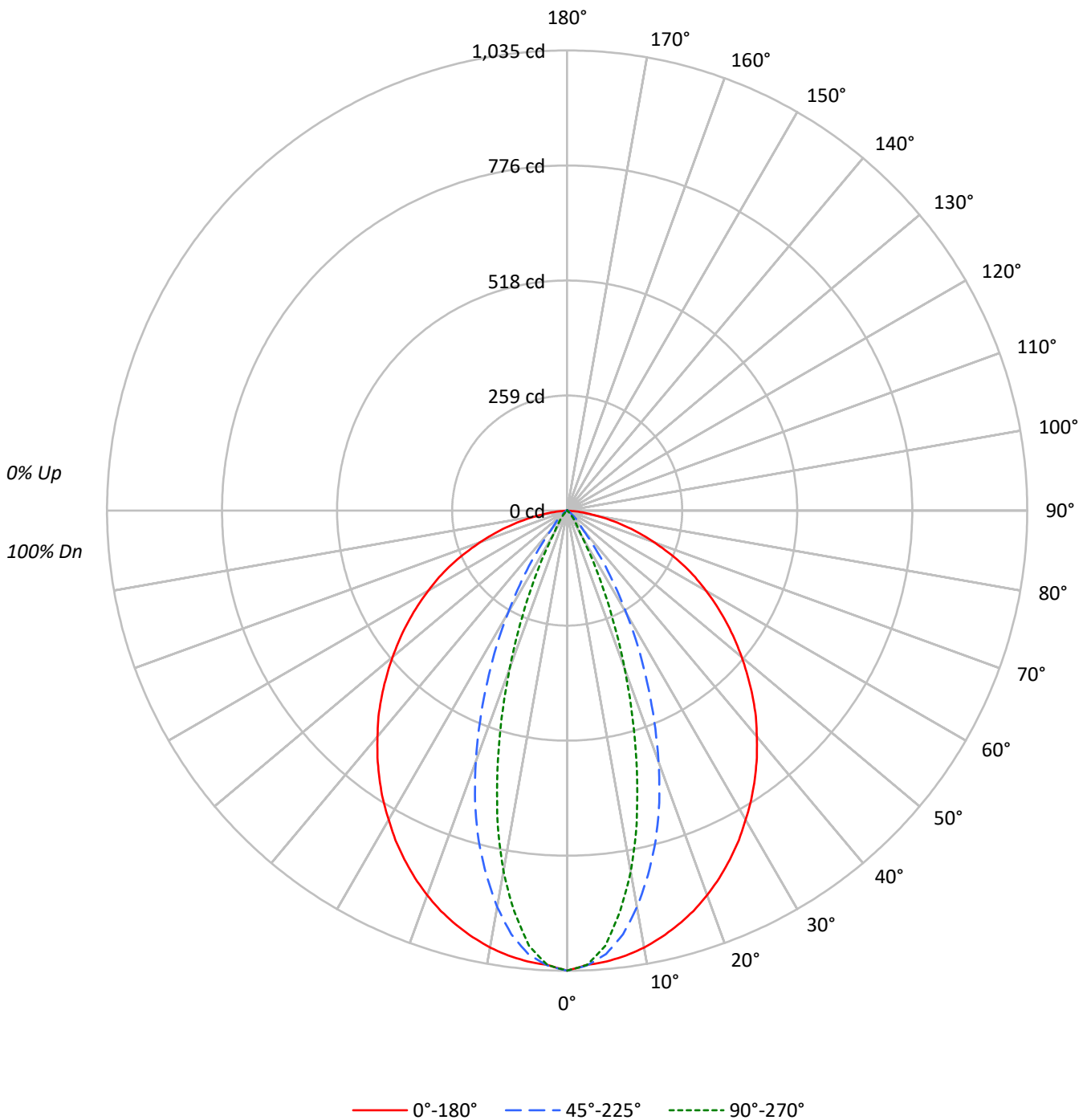
Lumens per Lamp: N/A
Luminaire Lumens: 941.5 lumens
Efficiency: N/A
Efficacy: 25.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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: P1055293

CATALOG NUMBER: S122R3DR-H1005D930-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot



TEST NUMBER: P1055293

CATALOG NUMBER: S122R3DR-H1005D930-X4F0-XX-UDD-F-B

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	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56					56			
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52					52			
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49					49			
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19605	19605	19605
5°	19364	19047	18685
10°	19198	17414	15858
15°	18920	15072	11874
20°	18561	12111	7601
25°	18101	8876	3903
30°	17565	5802	1275
35°	17030	3220	742
40°	16415	1293	413
45°	15808	860	158
50°	15109	492	71
55°	14418	235	40
60°	13656	91	0
65°	12853	54	0
70°	11533	66	0
75°	9926	88	0
80°	7528	0	0
85°	3109	261	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15808 cd/sqm

TEST NUMBER: P1055293

CATALOG NUMBER: S122R3DR-H1005D930-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	9.9
10°-20°	215.5	22.9
20°-30°	218.8	23.2
30°-40°	164.2	17.4
40°-50°	115.0	12.2
50°-60°	70.4	7.5
60°-70°	41.9	4.5
70°-80°	19.3	2.1
80°-90°	3.5	0.4
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°	527.2	56.0
0°-40°	691.4	73.4
0°-60°	876.7	93.1
0°-90°	941.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	941.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	1018	1028	1002	982	982	97
15°	965	912	768	651	605	272
25°	866	714	425	243	187	399
35°	736	479	139	42	32	460
45°	590	253	32	10	6	455
55°	436	77	7	2	1	390
65°	287	23	1	1	0	282
75°	136	2	1	1	0	144
85°	14	0	1	1	0	24
90°	0	0	0	0	0	



TEST NUMBER: P1055293

CATALOG NUMBER: S122R3DR-H1005D930-X4F0-XX-UDD-F-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1022.9	1038.4	1024.1	1021.7	1022.9
5°	1018.2	1027.7	1001.5	982.5	982.5
7.5°	1009.8	1009.8	961.1	921.8	909.9
10°	997.9	984.8	905.2	842.1	824.3
12.5°	982.5	951.5	839.7	750.5	722.0
15°	964.6	912.3	768.4	650.6	605.4
17.5°	944.4	868.3	688.7	542.4	490.0
20°	920.6	820.7	600.7	431.8	377.0
22.5°	894.5	768.4	511.5	333.0	274.8
25°	865.9	713.7	424.6	242.6	186.7
27.5°	836.2	656.6	344.9	166.5	114.2
30°	802.9	597.1	265.2	98.7	58.3
32.5°	770.8	540.0	198.6	53.5	42.8
35°	736.3	479.3	139.2	41.6	32.1
37.5°	700.6	422.2	85.6	30.9	23.8
40°	663.7	364.0	52.3	22.6	16.7
42.5°	628.0	309.3	41.6	15.5	10.7
45°	590.0	253.3	32.1	9.5	5.9
47.5°	550.7	202.2	23.8	5.9	3.6
50°	512.6	157.0	16.7	3.6	2.4
52.5°	474.6	115.4	10.7	2.4	1.2
55°	436.5	77.3	7.1	2.4	1.2
57.5°	398.5	54.7	4.8	1.2	1.2
60°	360.4	42.8	2.4	1.2	0.0
62.5°	324.7	33.3	2.4	1.2	1.2
65°	286.7	22.6	1.2	1.2	0.0
67.5°	246.2	14.3	1.2	1.2	0.0
70°	208.2	8.3	1.2	1.2	0.0
72.5°	171.3	4.8	1.2	1.2	0.0
75°	135.6	2.4	1.2	1.2	0.0
77.5°	101.1	1.2	0.0	1.2	0.0
80°	69.0	0.0	0.0	1.2	0.0
82.5°	40.4	0.0	0.0	1.2	0.0
85°	14.3	0.0	1.2	1.2	0.0
87.5°	0.0	0.0	1.2	1.2	0.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1055293
 CATALOG NUMBER: S122R3DR-H1005D930-X4F0-XX-UDD-F-B

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	16.55	17.81	16.92	18.12	18.44	0.00	0.00	0.00	0.00	0.00
	3H	20.29	21.41	20.67	21.74	22.11	0.00	0.00	0.00	0.00	0.00
	4H	21.60	22.64	22.01	22.99	23.38	0.00	0.00	0.00	0.00	0.00
	6H	22.46	23.41	22.87	23.78	24.18	0.00	0.00	0.00	0.00	0.00
	8H	22.67	23.57	23.10	23.97	24.37	0.00	0.00	0.00	0.00	0.00
	12H	22.74	23.60	23.17	23.98	24.41	0.00	0.00	0.00	0.00	0.00
4H	2H	16.30	17.34	16.71	17.70	18.08	0.00	0.00	0.00	0.00	0.00
	3H	20.05	20.90	20.46	21.30	21.71	0.00	0.00	0.00	0.00	0.00
	4H	21.34	22.10	21.78	22.52	22.97	0.00	0.00	0.00	0.00	0.00
	6H	22.26	22.92	22.72	23.36	23.83	0.00	0.00	0.00	0.00	0.00
	8H	22.52	23.13	22.99	23.58	24.05	0.00	0.00	0.00	0.00	0.00
	12H	22.62	23.16	23.11	23.64	24.12	0.00	0.00	0.00	0.00	0.00
8H	4H	21.20	21.81	21.67	22.26	22.73	0.00	0.00	0.00	0.00	0.00
	6H	22.10	22.59	22.60	23.09	23.57	0.00	0.00	0.00	0.00	0.00
	8H	22.36	22.80	22.88	23.32	23.81	0.00	0.00	0.00	0.00	0.00
	12H	22.47	22.86	22.99	23.36	23.93	0.00	0.00	0.00	0.00	0.00
12H	4H	21.15	21.69	21.64	22.17	22.65	0.00	0.00	0.00	0.00	0.00
	6H	22.03	22.48	22.56	23.00	23.49	0.00	0.00	0.00	0.00	0.00
	8H	22.31	22.70	22.83	23.20	23.77	0.00	0.00	0.00	0.00	0.00