

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: P1055298

Luminaire Tested: S122R3DR-H1005D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055298
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-H1005D935-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

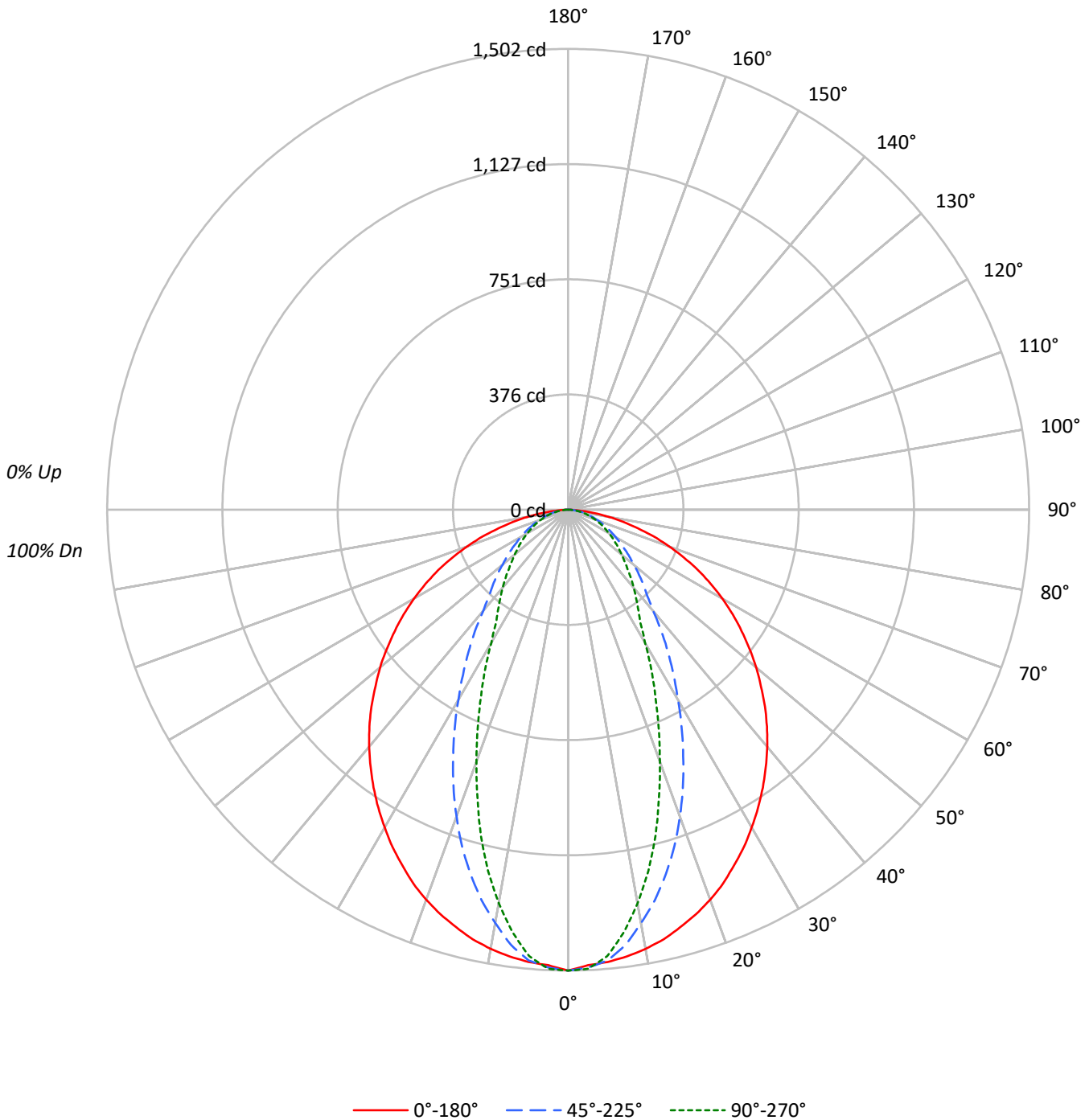
Lumens per Lamp: N/A
Luminaire Lumens: 2272.3 lumens
Efficiency: N/A
Efficacy: 62.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1055298

CATALOG NUMBER: S122R3DR-H1005D935-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P1055298

CATALOG NUMBER: S122R3DR-H1005D935-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°	28462	28462	28462
5°	28141	28046	27782
10°	27959	26316	25060
15°	27642	24120	21558
20°	27275	21450	17601
25°	26730	18538	14048
30°	26160	15664	10965
35°	25566	13102	9210
40°	24945	10625	8201
45°	24299	9289	7336
50°	23583	8220	6703
55°	22778	7425	6223
60°	21989	6760	5805
65°	20949	6195	5460
70°	19416	5778	5152
75°	17195	5241	4875
80°	14664	4932	4528
85°	10108	4369	4087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24299 cd/sqm



TEST NUMBER: P1055298

CATALOG NUMBER: S122R3DR-H1005D935-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	6.1
10°-20°	347.6	15.3
20°-30°	428.3	18.8
30°-40°	410.9	18.1
40°-50°	354.4	15.6
50°-60°	275.0	12.1
60°-70°	188.3	8.3
70°-80°	102.2	4.5
80°-90°	28.0	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°	913.5	40.2
0°-40°	1324.4	58.3
0°-60°	1953.8	86.0
0°-90°	2272.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2272.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1480	1501	1475	1456	1461	140
15°	1409	1367	1230	1129	1099	398
25°	1279	1142	887	724	672	589
35°	1105	877	566	422	398	691
45°	907	610	347	286	274	699
55°	690	367	225	195	188	617
65°	467	200	138	126	122	461
75°	235	92	72	68	67	252
85°	46	23	20	20	19	59
90°	0	0	0	0	0	



TEST NUMBER: P1055298

CATALOG NUMBER: S122R3DR-H1005D935-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1502.3	1502.3	1502.3	1502.3	1502.3
2.5°	1486.0	1511.1	1493.5	1493.5	1497.3
5°	1479.7	1501.0	1474.7	1455.8	1460.8
7.5°	1468.4	1483.4	1430.7	1390.5	1389.2
10°	1453.3	1454.6	1367.9	1315.1	1302.6
12.5°	1434.5	1414.4	1303.8	1224.7	1205.9
15°	1409.3	1366.6	1229.7	1129.2	1099.1
17.5°	1383.0	1317.6	1150.6	1025.0	983.5
20°	1352.8	1258.6	1063.9	920.7	873.0
22.5°	1318.9	1202.1	977.2	820.2	770.0
25°	1278.7	1141.8	886.8	723.5	672.0
27.5°	1239.8	1080.2	800.1	638.1	585.3
30°	1195.8	1013.7	716.0	556.5	501.2
32.5°	1151.8	945.8	638.1	478.6	437.1
35°	1105.4	876.8	566.5	422.0	398.2
37.5°	1057.6	808.9	498.7	384.4	363.0
40°	1008.6	741.1	429.6	347.9	331.6
42.5°	958.4	674.5	381.9	317.8	302.7
45°	906.9	610.5	346.7	286.4	273.8
47.5°	851.6	546.4	312.8	260.0	248.7
50°	800.1	484.9	278.9	236.1	227.4
52.5°	744.9	424.6	251.2	214.8	207.3
55°	689.6	366.8	224.8	194.7	188.4
57.5°	635.6	311.5	199.7	175.9	170.8
60°	580.3	267.5	178.4	158.3	153.2
62.5°	523.8	232.4	158.3	141.9	136.9
65°	467.3	199.7	138.2	125.6	121.8
67.5°	408.2	168.3	120.6	110.5	108.0
70°	350.5	140.7	104.3	95.5	93.0
72.5°	293.9	114.3	87.9	81.6	79.1
75°	234.9	91.7	71.6	67.8	66.6
77.5°	183.4	71.6	57.8	55.3	54.0
80°	134.4	52.8	45.2	42.7	41.5
82.5°	89.2	36.4	32.7	31.4	30.1
85°	46.5	22.6	20.1	20.1	18.8
87.5°	15.1	10.0	10.0	10.0	8.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1055298
 CATALOG NUMBER: S122R3DR-H1005D935-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	21.24	22.71	21.61	23.02	23.34	16.05	17.52	16.41	17.83	18.15
	3H	23.57	24.89	23.95	25.22	25.58	17.70	19.01	18.08	19.34	19.70
	4H	24.47	25.70	24.87	26.05	26.43	18.33	19.57	18.73	19.92	20.30
	6H	25.13	26.27	25.54	26.64	27.03	18.83	19.97	19.24	20.33	20.73
	8H	25.34	26.42	25.77	26.81	27.21	19.00	20.08	19.42	20.47	20.87
	12H	25.45	26.49	25.89	26.87	27.30	19.11	20.15	19.54	20.53	20.96
4H	2H	21.26	22.49	21.66	22.84	23.22	16.77	18.00	17.17	18.35	18.73
	3H	23.67	24.70	24.08	25.10	25.50	18.61	19.64	19.02	20.04	20.44
	4H	24.60	25.52	25.03	25.94	26.38	19.36	20.28	19.79	20.70	21.14
	6H	25.38	26.18	25.84	26.62	27.09	19.97	20.78	20.43	21.22	21.68
	8H	25.65	26.40	26.11	26.84	27.31	20.19	20.94	20.66	21.38	21.85
	12H	25.83	26.49	26.31	26.97	27.45	20.35	21.02	20.83	21.50	21.97
8H	4H	24.59	25.34	25.06	25.79	26.26	19.74	20.49	20.20	20.93	21.40
	6H	25.40	26.02	25.90	26.51	26.99	20.48	21.09	20.97	21.59	22.06
	8H	25.70	26.26	26.22	26.77	27.26	20.77	21.33	21.29	21.84	22.33
	12H	25.93	26.42	26.45	26.92	27.48	21.02	21.50	21.53	22.00	22.56
12H	4H	24.57	25.24	25.06	25.72	26.19	19.80	20.46	20.28	20.94	21.41
	6H	25.38	25.93	25.89	26.44	26.93	20.56	21.12	21.08	21.63	22.12
	8H	25.71	26.20	26.22	26.69	27.26	20.92	21.41	21.43	21.90	22.47