

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: P1055996

Luminaire Tested: S124R3DR-S1195D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1195D930-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

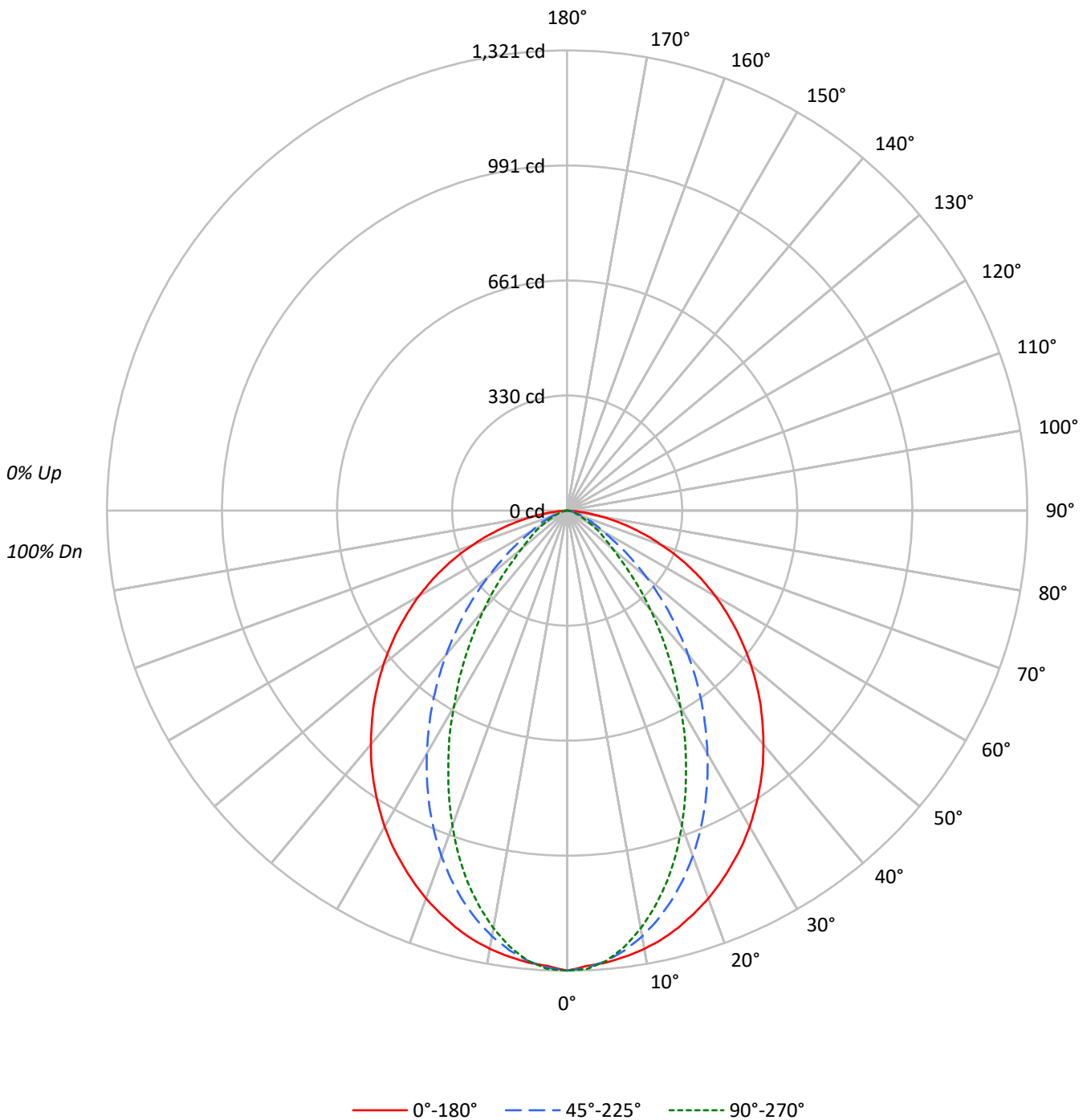
Lumens per Lamp: N/A
Luminaire Lumens: 2135.3 lumens
Efficiency: N/A
Efficacy: 51.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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: P1055996

CATALOG NUMBER: S124R3DR-S1195D930-X4F0-XX-UDD-F-S

Luminous Intensity Polar Plot





TEST NUMBER: P1055996

CATALOG NUMBER: S124R3DR-S1195D930-X4F0-XX-UDD-F-S

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11676	11676	11676
5°	11556	11513	11513
10°	11469	11139	10929
15°	11334	10602	10107
20°	11152	9926	9059
25°	10928	9128	7869
30°	10695	8222	6628
35°	10418	7260	5455
40°	10119	6230	4300
45°	9809	5181	3213
50°	9472	4076	2351
55°	9098	3014	1876
60°	8696	2087	1436
65°	8180	1621	1054
70°	7406	1145	827
75°	6470	799	629
80°	5198	626	565
85°	2871	497	497

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9809 cd/sqm



TEST NUMBER: P1055996

CATALOG NUMBER: S124R3DR-S1195D930-X4F0-XX-UDD-F-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	5.7
10°-20°	327.3	15.3
20°-30°	436.5	20.4
30°-40°	439.5	20.6
40°-50°	360.4	16.9
50°-60°	246.4	11.5
60°-70°	137.7	6.4
70°-80°	54.6	2.6
80°-90°	10.4	0.5
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°	886.3	41.5
0°-40°	1325.9	62.1
0°-60°	1932.7	90.5
0°-90°	2135.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2135.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1321	1321	1321	1321	1321	
5°	1302	1317	1297	1291	1297	124
15°	1238	1225	1158	1118	1104	349
25°	1120	1065	936	841	807	516
35°	965	863	673	545	505	604
45°	784	641	414	291	257	605
55°	590	414	196	130	122	528
65°	391	197	78	55	50	386
75°	189	52	23	20	18	203
85°	28	5	5	5	5	40
90°	0	0	0	0	0	



TEST NUMBER: P1055996

CATALOG NUMBER: S124R3DR-S1195D930-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1320.6	1320.6	1320.6	1320.6	1320.6
2.5°	1308.3	1324.3	1313.2	1314.4	1316.9
5°	1302.1	1316.9	1297.2	1291.1	1297.2
7.5°	1291.1	1302.1	1272.6	1260.3	1262.8
10°	1277.5	1281.2	1240.7	1219.8	1217.3
12.5°	1260.3	1255.4	1202.5	1171.8	1164.4
15°	1238.2	1224.7	1158.3	1117.7	1104.2
17.5°	1212.4	1189.0	1109.1	1056.2	1036.5
20°	1185.3	1150.9	1055.0	987.4	962.8
22.5°	1153.4	1110.3	997.2	914.8	886.5
25°	1120.2	1064.8	935.7	841.0	806.6
27.5°	1085.7	1018.1	871.8	766.0	731.6
30°	1047.6	967.7	805.4	691.0	649.2
32.5°	1007.0	916.0	739.0	617.3	577.9
35°	965.2	863.2	672.6	544.7	505.4
37.5°	922.2	809.1	606.2	475.9	436.5
40°	876.7	753.7	539.8	410.7	372.6
42.5°	830.0	697.2	475.9	349.2	313.5
45°	784.5	640.6	414.4	291.4	257.0
47.5°	736.5	584.1	354.1	237.3	207.8
50°	688.6	527.5	296.3	190.6	170.9
52.5°	639.4	470.9	243.5	156.2	142.6
55°	590.2	414.4	195.5	130.3	121.7
57.5°	541.0	357.8	151.2	110.7	100.8
60°	491.8	302.5	118.0	89.8	81.2
62.5°	441.4	247.1	97.1	71.3	63.9
65°	391.0	196.7	77.5	55.3	50.4
67.5°	340.6	150.0	59.0	43.0	39.3
70°	286.5	107.0	44.3	33.2	32.0
72.5°	239.8	72.5	32.0	25.8	24.6
75°	189.4	51.6	23.4	19.7	18.4
77.5°	146.3	33.2	17.2	16.0	14.8
80°	102.1	18.4	12.3	11.1	11.1
82.5°	62.7	9.8	8.6	7.4	7.4
85°	28.3	4.9	4.9	4.9	4.9
87.5°	4.9	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1055996
 CATALOG NUMBER: S124R3DR-S1195D930-X4F0-XX-UDD-F-S

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	19.26	20.67	19.63	20.98	21.30	10.35	11.76	10.72	12.07	12.39
	3H	20.85	22.10	21.23	22.43	22.79	10.94	12.20	11.32	12.53	12.89
	4H	21.44	22.61	21.84	22.96	23.34	11.10	12.27	11.50	12.62	13.00
	6H	21.87	22.95	22.29	23.32	23.71	11.21	12.28	11.62	12.65	13.05
	8H	21.99	23.01	22.42	23.40	23.80	11.23	12.25	11.66	12.64	13.04
	12H	22.03	23.01	22.46	23.39	23.82	11.24	12.21	11.67	12.60	13.03
4H	2H	19.12	20.28	19.52	20.63	21.02	10.94	12.11	11.34	12.46	12.84
	3H	20.76	21.72	21.18	22.13	22.53	11.65	12.61	12.06	13.01	13.41
	4H	21.37	22.23	21.80	22.65	23.09	11.85	12.71	12.29	13.13	13.57
	6H	21.86	22.60	22.32	23.05	23.51	12.02	12.76	12.48	13.21	13.67
	8H	22.00	22.70	22.47	23.14	23.61	12.05	12.75	12.52	13.19	13.66
	12H	22.08	22.69	22.56	23.17	23.65	12.08	12.69	12.56	13.17	13.65
8H	4H	21.26	21.95	21.73	22.40	22.87	12.12	12.82	12.59	13.26	13.73
	6H	21.74	22.31	22.24	22.81	23.29	12.33	12.90	12.83	13.39	13.87
	8H	21.89	22.40	22.41	22.91	23.40	12.39	12.90	12.91	13.41	13.90
	12H	21.98	22.43	22.49	22.92	23.49	12.45	12.89	12.96	13.39	13.96
12H	4H	21.22	21.84	21.71	22.32	22.79	12.15	12.76	12.64	13.25	13.72
	6H	21.69	22.20	22.21	22.71	23.20	12.36	12.87	12.88	13.38	13.87
	8H	21.85	22.30	22.37	22.80	23.36	12.45	12.90	12.96	13.39	13.96