

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: P1055963

Luminaire Tested: S124R3DR-S1020D850-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055963
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-S1020D850-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

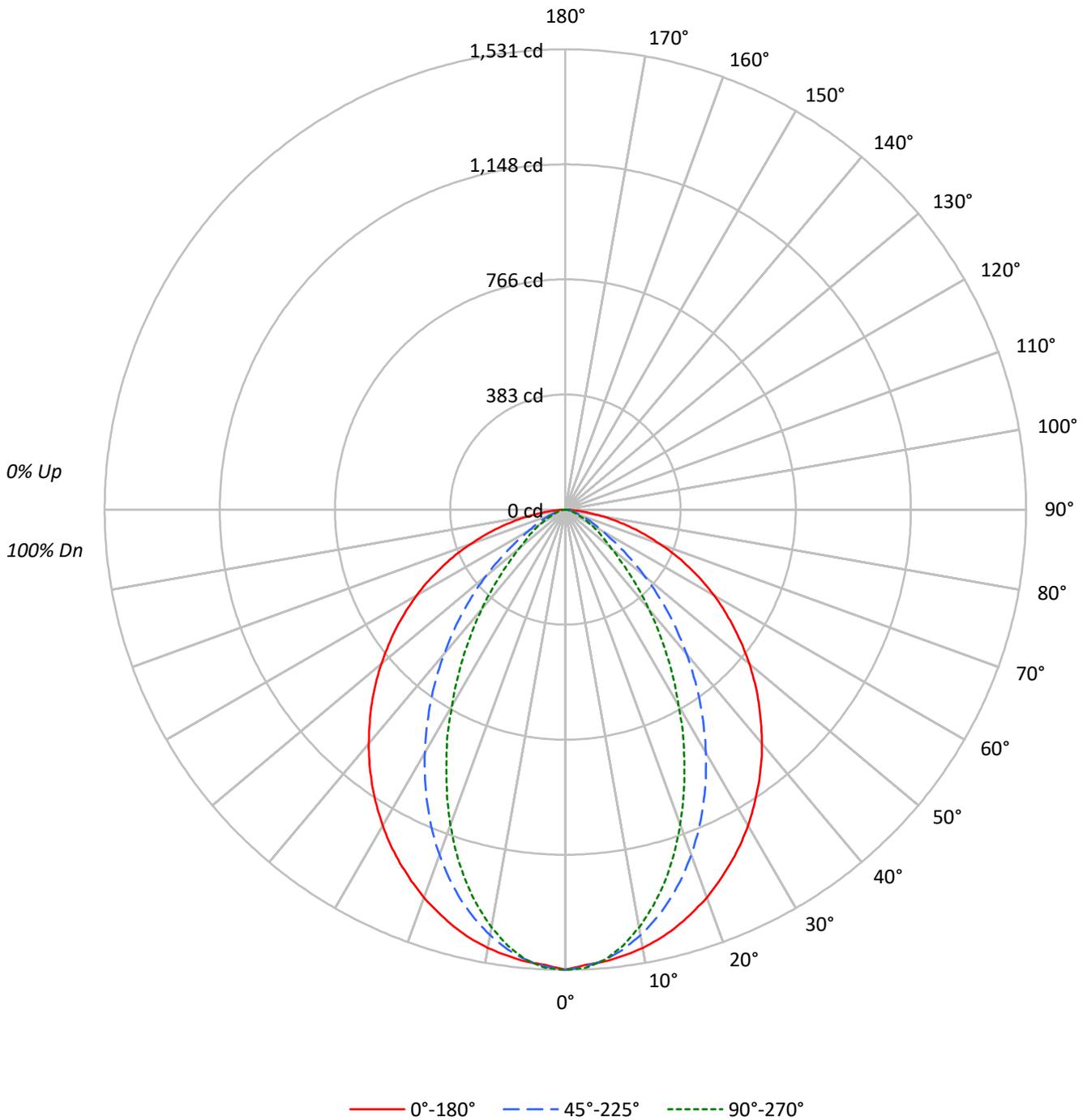
Lumens per Lamp: N/A
Luminaire Lumens: 2475.0 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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: P1055963

CATALOG NUMBER: S124R3DR-S1020D850-X4F0-XX-UDD-FLL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1055963

CATALOG NUMBER: S124R3DR-S1020D850-X4F0-XX-UDD-FLL-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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89				89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78				78
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60				60
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54				54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48				48
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44				44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40				40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37				37
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13533	13533	13533
5°	13394	13344	13344
10°	13293	12910	12667
15°	13136	12288	11714
20°	12926	11505	10499
25°	12665	10580	9120
30°	12396	9530	7682
35°	12074	8413	6322
40°	11727	7220	4984
45°	11368	6005	3725
50°	10978	4725	2725
55°	10545	3493	2175
60°	10081	2419	1664
65°	9481	1879	1222
70°	8585	1326	959
75°	7498	926	731
80°	6023	728	652
85°	3327	578	578

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11368 cd/sqm



TEST NUMBER: P1055963

CATALOG NUMBER: S124R3DR-S1020D850-X4F0-XX-UDD-FLL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	5.7
10°-20°	379.3	15.3
20°-30°	506.0	20.4
30°-40°	509.4	20.6
40°-50°	417.8	16.9
50°-60°	285.6	11.5
60°-70°	159.6	6.4
70°-80°	63.3	2.6
80°-90°	12.0	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°	1027.3	41.5
0°-40°	1536.7	62.1
0°-60°	2240.1	90.5
0°-90°	2475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1531	1531	1531	1531	1531	
5°	1509	1526	1504	1496	1504	143
15°	1435	1419	1342	1295	1280	404
25°	1298	1234	1084	975	935	598
35°	1119	1000	780	631	586	700
45°	909	742	480	338	298	701
55°	684	480	227	151	141	612
65°	453	228	90	64	58	448
75°	220	60	27	23	21	235
85°	33	6	6	6	6	46
90°	0	0	0	0	0	



TEST NUMBER: P1055963

CATALOG NUMBER: S124R3DR-S1020D850-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1530.6	1530.6	1530.6	1530.6	1530.6
2.5°	1516.3	1534.9	1522.0	1523.5	1526.3
5°	1509.2	1526.3	1503.5	1496.4	1503.5
7.5°	1496.4	1509.2	1475.0	1460.8	1463.6
10°	1480.7	1485.0	1438.0	1413.7	1410.9
12.5°	1460.8	1455.1	1393.8	1358.2	1349.6
15°	1435.1	1419.4	1342.5	1295.4	1279.8
17.5°	1405.2	1378.1	1285.5	1224.2	1201.4
20°	1373.8	1333.9	1222.8	1144.4	1115.9
22.5°	1336.8	1286.9	1155.8	1060.3	1027.5
25°	1298.3	1234.2	1084.5	974.8	934.9
27.5°	1258.4	1180.0	1010.4	887.9	848.0
30°	1214.2	1121.6	933.5	800.9	752.5
32.5°	1167.2	1061.7	856.5	715.4	669.8
35°	1118.7	1000.4	779.5	631.3	585.7
37.5°	1068.9	937.7	702.6	551.5	505.9
40°	1016.1	873.6	625.6	476.0	431.8
42.5°	962.0	808.1	551.5	404.7	363.4
45°	909.2	742.5	480.3	337.8	297.9
47.5°	853.7	676.9	410.4	275.1	240.8
50°	798.1	611.4	343.5	220.9	198.1
52.5°	741.1	545.8	282.2	181.0	165.3
55°	684.1	480.3	226.6	151.1	141.1
57.5°	627.1	414.7	175.3	128.3	116.9
60°	570.1	350.6	136.8	104.0	94.1
62.5°	511.6	286.5	112.6	82.7	74.1
65°	453.2	228.0	89.8	64.1	58.4
67.5°	394.8	173.9	68.4	49.9	45.6
70°	332.1	124.0	51.3	38.5	37.1
72.5°	277.9	84.1	37.1	29.9	28.5
75°	219.5	59.9	27.1	22.8	21.4
77.5°	169.6	38.5	20.0	18.5	17.1
80°	118.3	21.4	14.3	12.8	12.8
82.5°	72.7	11.4	10.0	8.6	8.6
85°	32.8	5.7	5.7	5.7	5.7
87.5°	5.7	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)