

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: P1060239

Luminaire Tested: S124RDR-S1020D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060239
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

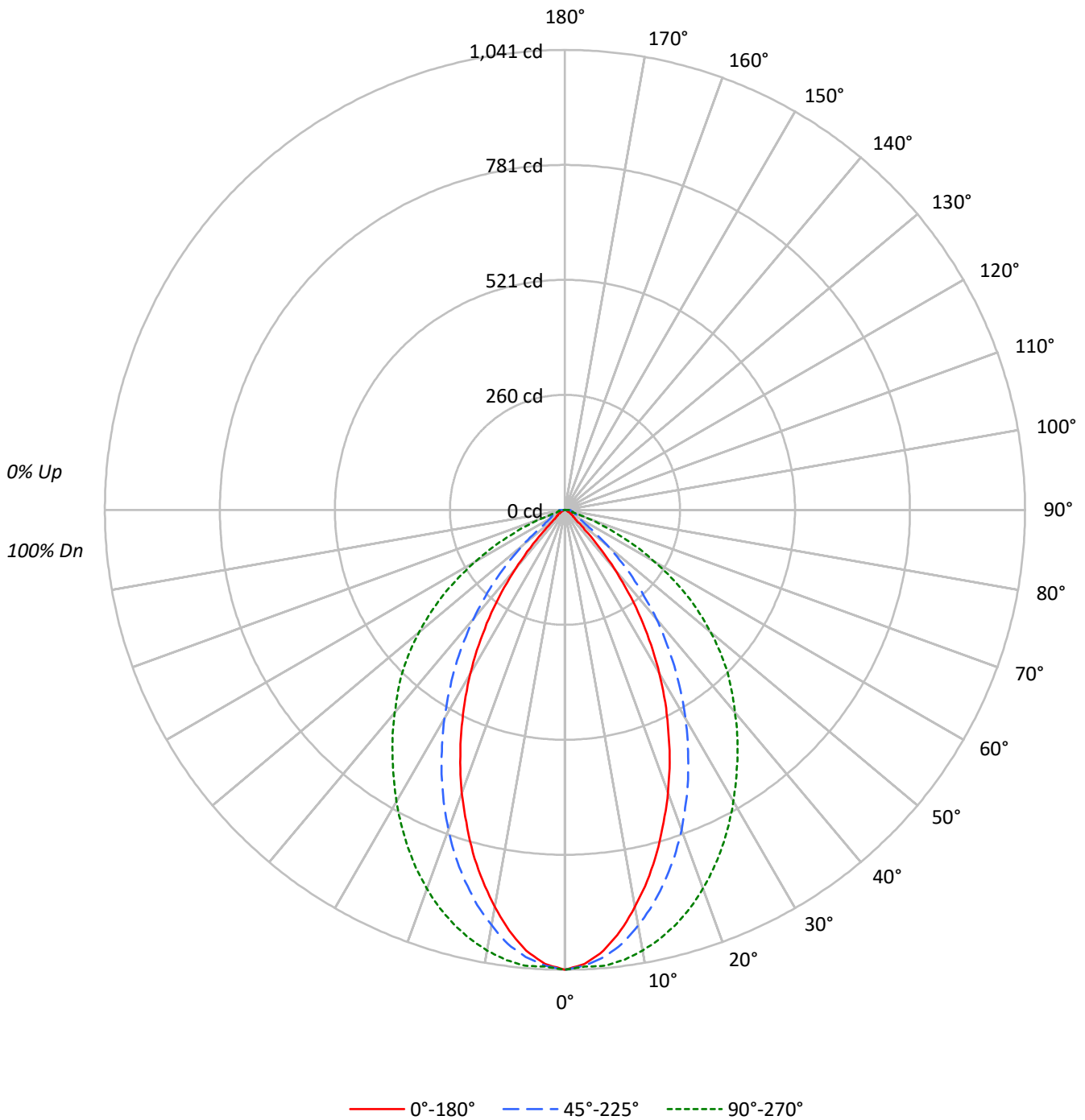
Lumens per Lamp: N/A
Luminaire Lumens: 1311.8 lumens
Efficiency: N/A
Efficacy: 37.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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: P1060239

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1060239

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-BVL-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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8963	8963	8963
5°	8660	8786	8955
10°	7980	8353	8856
15°	7167	7766	8658
20°	6247	7064	8363
25°	5269	6268	7997
30°	4252	5418	7580
35°	3146	4533	7154
40°	1950	3612	6729
45°	773	2633	6337
50°	344	1653	5761
55°	275	862	5044
60°	189	653	4018
65°	124	648	2763
70°	123	584	1292
75°	163	569	569
80°	243	664	664
85°	484	1324	968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6337 cd/sqm



TEST NUMBER: P1060239

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	7.3
10°-20°	246.4	18.8
20°-30°	311.0	23.7
30°-40°	285.4	21.8
40°-50°	194.4	14.8
50°-60°	105.9	8.1
60°-70°	45.8	3.5
70°-80°	16.7	1.3
80°-90°	10.7	0.8
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°	653.0	49.8
0°-40°	938.3	71.5
0°-60°	1238.6	94.4
0°-90°	1311.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1311.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1002	1015	1016	1027	1036	93
15°	804	832	871	933	971	224
25°	555	594	660	765	842	253
35°	299	343	431	568	680	185
45°	64	106	216	384	520	59
55°	18	20	57	211	336	16
65°	6	9	32	66	136	7
75°	5	16	17	17	17	5
85°	5	11	13	13	10	4
90°	0	0	0	0	0	



TEST NUMBER: P1060239

CATALOG NUMBER: S124RDR-S1020D840-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1040.9	1040.9	1040.9	1040.9	1040.9
2.5°	1028.6	1040.9	1032.3	1034.8	1034.8
5°	1001.8	1015.2	1016.4	1027.4	1036.0
7.5°	961.5	981.0	990.8	1012.8	1027.4
10°	912.6	935.8	955.3	993.2	1012.8
12.5°	860.1	886.9	916.3	966.3	994.4
15°	803.9	832.0	871.1	933.4	971.2
17.5°	741.6	775.8	823.4	897.9	944.4
20°	681.7	715.9	770.9	855.2	912.6
22.5°	619.4	654.8	715.9	810.0	878.4
25°	554.6	593.7	659.7	764.8	841.7
27.5°	491.1	532.6	602.3	717.1	802.6
30°	427.6	469.1	544.9	668.3	762.3
32.5°	362.8	405.6	487.4	616.9	720.8
35°	299.3	343.3	431.2	568.1	680.5
37.5°	234.6	281.0	375.1	520.4	640.2
40°	173.5	219.9	321.3	472.8	598.6
42.5°	116.1	162.5	266.3	426.4	559.5
45°	63.5	106.3	216.2	383.6	520.4
47.5°	34.2	58.6	167.4	342.1	476.5
50°	25.7	31.8	123.4	298.1	430.0
52.5°	22.0	24.4	85.5	251.7	383.6
55°	18.3	19.5	57.4	211.3	336.0
57.5°	14.7	15.9	42.8	171.0	284.6
60°	11.0	13.4	37.9	131.9	233.3
62.5°	8.6	11.0	35.4	96.5	184.5
65°	6.1	8.6	31.8	66.0	135.6
67.5°	6.1	9.8	26.9	42.8	91.6
70°	4.9	13.4	23.2	28.1	51.3
72.5°	4.9	14.7	19.5	19.5	19.5
75°	4.9	15.9	17.1	17.1	17.1
77.5°	4.9	14.7	15.9	14.7	14.7
80°	4.9	13.4	13.4	13.4	13.4
82.5°	4.9	12.2	13.4	13.4	11.0
85°	4.9	11.0	13.4	13.4	9.8
87.5°	3.7	11.0	12.2	12.2	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)