

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: P1060297

Luminaire Tested: S124RDR-S1020D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060297
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D950-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

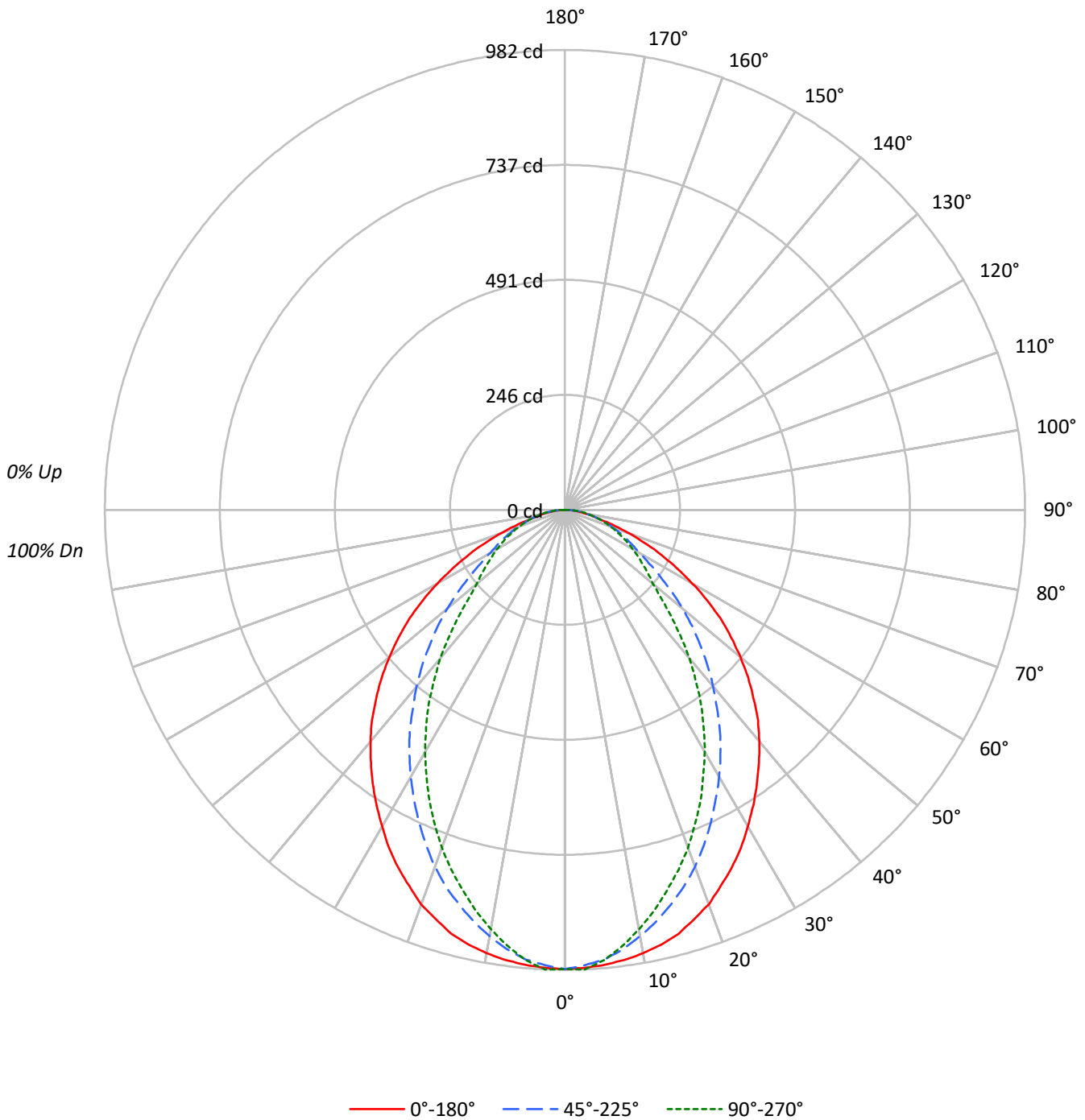
Lumens per Lamp: N/A
Luminaire Lumens: 1891.3 lumens
Efficiency: N/A
Efficacy: 54.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060297

CATALOG NUMBER: S124RDR-S1020D950-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1060297

CATALOG NUMBER: S124RDR-S1020D950-X4F0-XX-UDD-WVL-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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86			86	
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74			74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64			64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44			44	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36			36	
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8446	8446	8446
5°	8429	8329	8339
10°	8406	8083	7952
15°	8354	7778	7501
20°	8217	7435	7034
25°	8005	6998	6505
30°	7759	6544	5936
35°	7512	6070	5331
40°	7255	5533	4652
45°	6934	4969	3888
50°	6547	4385	3289
55°	6091	3720	3046
60°	5399	3157	2878
65°	4603	2912	2724
70°	3598	2699	2583
75°	2455	2492	2492
80°	2113	2346	2400
85°	1818	2282	2510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6934 cd/sqm



TEST NUMBER: P1060297

CATALOG NUMBER: S124RDR-S1020D950-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	4.8
10°-20°	247.8	13.1
20°-30°	344.1	18.2
30°-40°	368.8	19.5
40°-50°	326.7	17.3
50°-60°	246.2	13.0
60°-70°	159.4	8.4
70°-80°	81.8	4.3
80°-90°	25.1	1.3
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°	683.1	36.1
0°-40°	1051.9	55.6
0°-60°	1624.9	85.9
0°-90°	1891.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1891.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	975	976	964	965	965	93
15°	937	916	872	851	841	264
25°	842	798	736	697	685	388
35°	715	650	577	526	507	447
45°	569	496	408	345	319	439
55°	406	338	248	209	203	360
65°	226	182	143	135	134	224
75°	74	77	75	75	75	87
85°	18	20	23	25	25	21
90°	0	0	0	0	0	



TEST NUMBER: P1060297

CATALOG NUMBER: S124RDR-S1020D950-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.8	980.8	980.8	980.8	980.8
2.5°	978.5	982.0	972.8	979.7	982.0
5°	975.1	976.2	963.6	964.7	964.7
7.5°	969.3	967.0	946.3	940.5	939.4
10°	961.3	954.3	924.4	912.8	909.4
12.5°	950.9	938.2	900.2	884.0	877.1
15°	937.1	916.3	872.5	850.6	841.4
17.5°	916.3	889.8	843.7	816.0	805.7
20°	896.7	861.0	811.4	776.8	767.6
22.5°	869.0	831.0	774.5	737.7	726.1
25°	842.5	797.6	736.5	697.3	684.6
27.5°	813.7	763.0	697.3	655.8	639.7
30°	780.3	726.1	658.1	614.3	597.0
32.5°	748.0	690.4	617.8	569.4	550.9
35°	714.6	650.1	577.4	525.6	507.1
37.5°	680.0	612.0	532.5	481.8	457.6
40°	645.4	574.0	492.2	434.5	413.8
42.5°	609.7	534.8	450.7	390.7	364.2
45°	569.4	495.6	408.0	344.6	319.3
47.5°	530.2	457.6	368.8	299.7	276.6
50°	488.7	417.2	327.3	260.5	245.5
52.5°	447.2	375.7	287.0	230.5	223.6
55°	405.7	337.7	247.8	208.6	202.9
57.5°	359.6	298.5	213.2	189.0	184.4
60°	313.5	255.9	183.3	170.6	167.1
62.5°	268.6	219.0	162.5	152.1	149.8
65°	225.9	182.1	142.9	134.9	133.7
67.5°	184.4	149.8	124.5	119.9	117.6
70°	142.9	119.9	107.2	104.9	102.6
72.5°	106.0	96.8	91.1	89.9	88.7
75°	73.8	77.2	74.9	74.9	74.9
77.5°	58.8	59.9	61.1	62.2	61.1
80°	42.6	46.1	47.3	49.6	48.4
82.5°	30.0	32.3	35.7	36.9	38.0
85°	18.4	19.6	23.1	25.4	25.4
87.5°	8.1	9.2	11.5	13.8	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)