

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: P1060289

Luminaire Tested: S124RDR-S1020D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060289
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

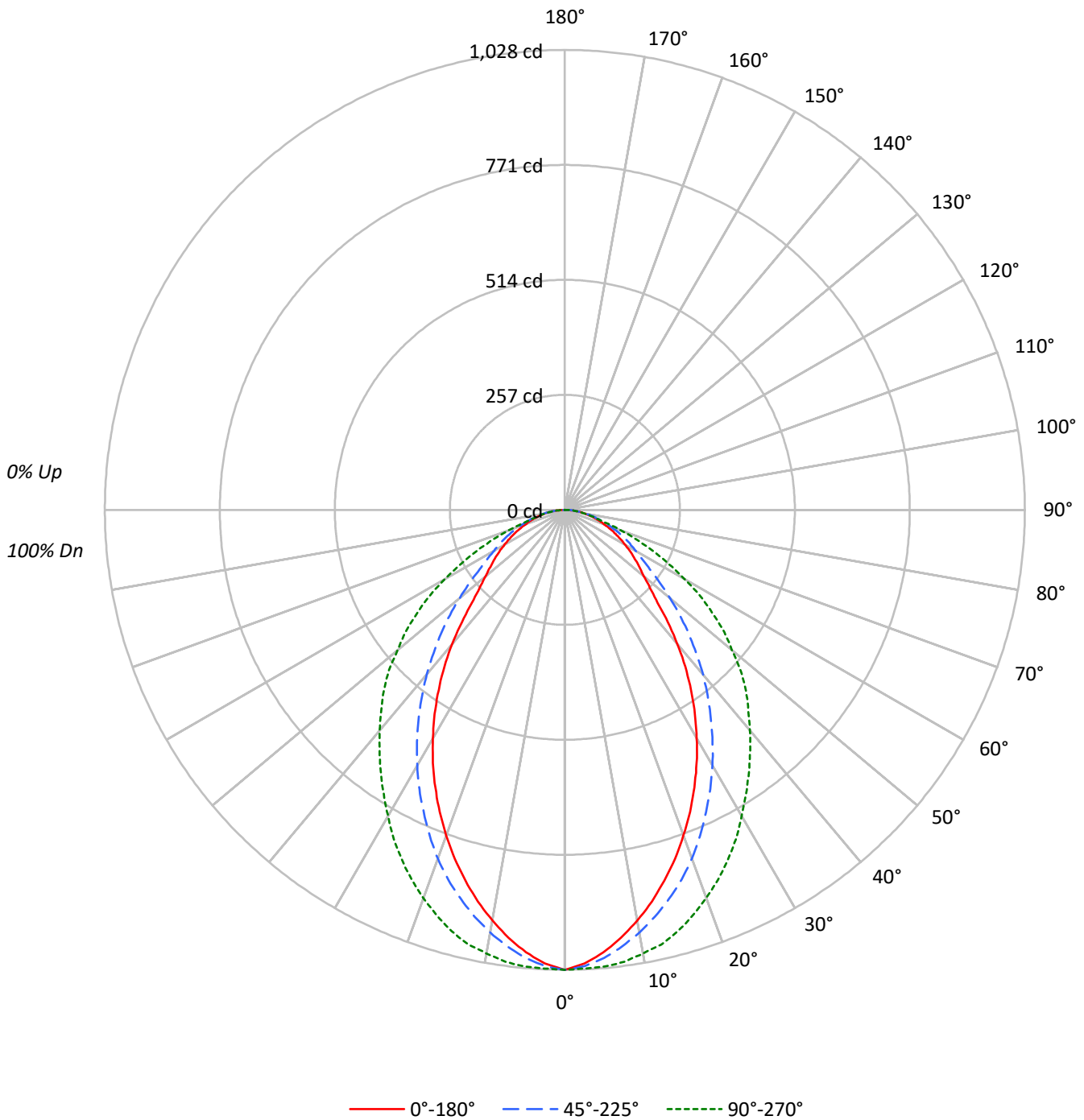
Lumens per Lamp: N/A
Luminaire Lumens: 1872.2 lumens
Efficiency: N/A
Efficacy: 53.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060289

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1060289

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-WVL-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				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8855	8855	8855
5°	8582	8693	8861
10°	8153	8389	8803
15°	7649	8024	8696
20°	7102	7606	8465
25°	6504	7087	8193
30°	5863	6560	7856
35°	5167	5983	7535
40°	4399	5392	7234
45°	3571	4765	6971
50°	3091	4101	6527
55°	2864	3480	6052
60°	2673	3138	5310
65°	2504	2942	4415
70°	2334	2714	3339
75°	2222	2512	2402
80°	2083	2301	2033
85°	1917	2134	1601

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6971 cd/sqm



TEST NUMBER: P1060289

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	5.1
10°-20°	255.2	13.6
20°-30°	348.5	18.6
30°-40°	365.1	19.5
40°-50°	316.0	16.9
50°-60°	237.4	12.7
60°-70°	153.1	8.2
70°-80°	78.5	4.2
80°-90°	23.5	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°	698.6	37.3
0°-40°	1063.7	56.8
0°-60°	1617.1	86.4
0°-90°	1872.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1872.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1028	1028	1028	1028	1028	
5°	993	1008	1006	1013	1025	93
15°	858	880	900	941	976	241
25°	684	710	746	804	862	314
35°	492	520	569	645	717	306
45°	293	323	391	487	572	231
55°	191	197	232	331	403	171
65°	123	125	144	175	217	122
75°	67	74	76	74	72	71
85°	19	23	22	20	16	22
90°	0	0	0	0	0	



TEST NUMBER: P1060289

CATALOG NUMBER: S124RDR-S1020D940-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1028.3	1028.3	1028.3	1028.3	1028.3
2.5°	1015.4	1028.3	1020.8	1023.0	1026.2
5°	992.8	1007.9	1005.7	1013.3	1025.1
7.5°	964.7	980.9	984.2	1001.4	1018.6
10°	932.4	950.7	959.4	985.2	1006.8
12.5°	896.8	916.2	931.3	963.7	994.9
15°	858.0	879.6	900.1	941.0	975.5
17.5°	818.1	839.7	866.7	911.9	950.7
20°	775.0	798.7	830.0	877.4	923.8
22.5°	730.8	755.6	789.0	840.8	894.7
25°	684.5	710.4	745.9	804.1	862.3
27.5°	638.1	664.0	703.9	765.3	828.9
30°	589.6	616.6	659.7	726.5	790.1
32.5°	541.1	570.2	614.4	685.6	753.5
35°	491.5	519.6	569.1	644.6	716.8
37.5°	442.0	471.1	523.9	604.7	680.2
40°	391.3	421.5	479.7	564.8	643.5
42.5°	340.6	373.0	434.4	523.9	606.9
45°	293.2	323.4	391.3	487.2	572.4
47.5°	257.6	278.1	348.2	451.7	533.6
50°	230.7	241.5	306.1	412.8	487.2
52.5°	210.2	217.7	267.3	370.8	449.5
55°	190.8	197.3	231.8	330.9	403.1
57.5°	173.5	176.8	204.8	292.1	359.0
60°	155.2	158.5	182.2	250.1	308.3
62.5°	139.1	141.2	163.8	210.2	261.9
65°	122.9	125.0	144.4	174.6	216.7
67.5°	107.8	111.0	126.1	142.3	172.5
70°	92.7	99.2	107.8	115.3	132.6
72.5°	79.8	86.2	90.5	92.7	93.8
75°	66.8	74.4	75.5	74.4	72.2
77.5°	53.9	60.4	60.4	58.2	56.1
80°	42.0	47.4	46.4	44.2	41.0
82.5°	31.3	34.5	33.4	31.3	28.0
85°	19.4	22.6	21.6	20.5	16.2
87.5°	9.7	12.9	11.9	10.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)