

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: P1060253

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060253
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-S1020D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

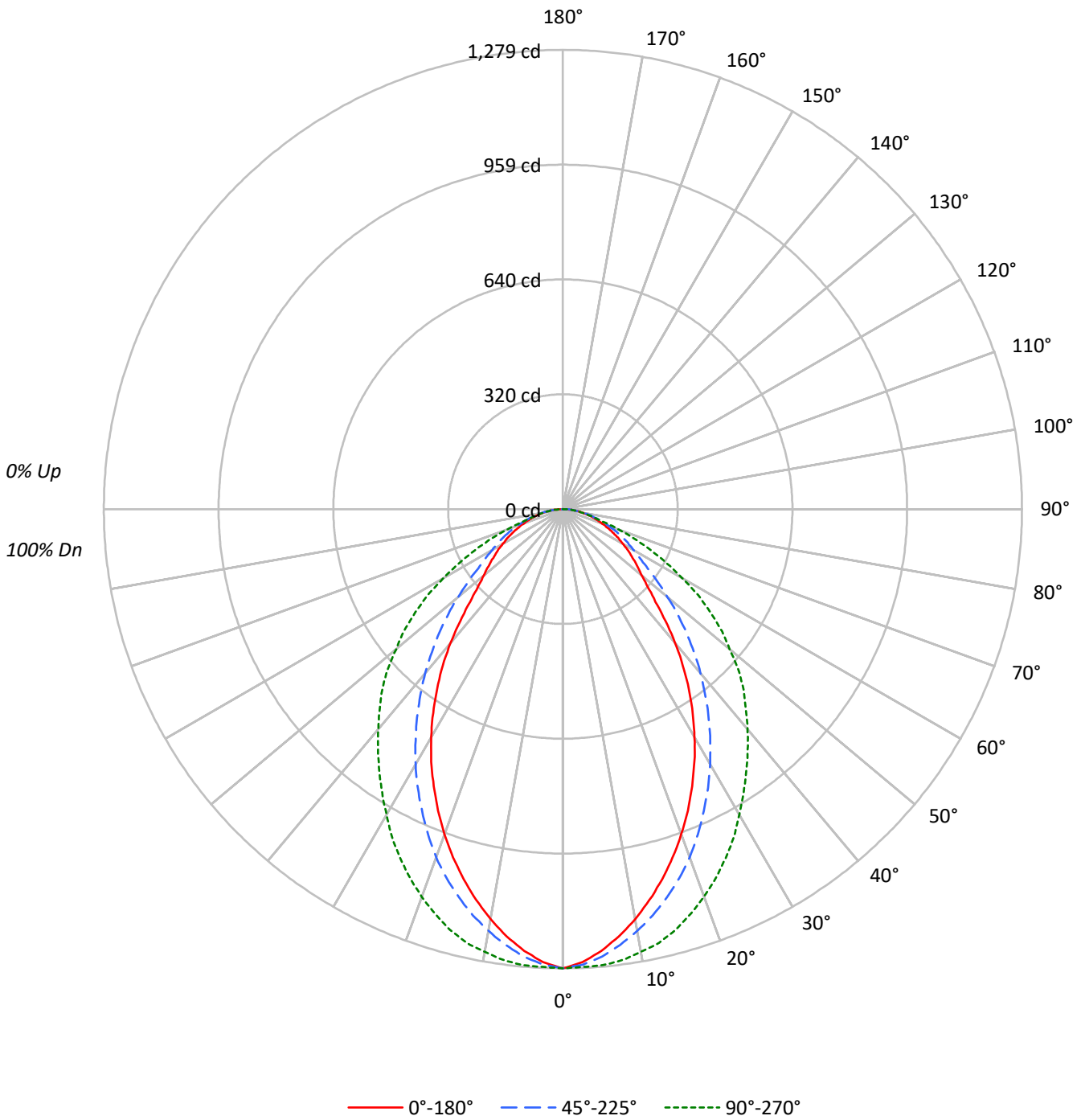
Lumens per Lamp: N/A
Luminaire Lumens: 2328.4 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060253

CATALOG NUMBER: S124RDR-S1020D850-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





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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°	11013	11013	11013
5°	10673	10812	11020
10°	10140	10432	10948
15°	9513	9979	10816
20°	8833	9460	10528
25°	8088	8814	10190
30°	7291	8157	9771
35°	6426	7441	9372
40°	5470	6706	8996
45°	4440	5926	8670
50°	3843	5100	8117
55°	3563	4327	7528
60°	3324	3903	6603
65°	3113	3659	5491
70°	2903	3376	4152
75°	2765	3121	2988
80°	2594	2856	2524
85°	2381	2648	1986

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8670 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.1	5.1
10°-20°	317.4	13.6
20°-30°	433.4	18.6
30°-40°	454.0	19.5
40°-50°	393.0	16.9
50°-60°	295.3	12.7
60°-70°	190.4	8.2
70°-80°	97.6	4.2
80°-90°	29.2	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°	868.8	37.3
0°-40°	1322.9	56.8
0°-60°	2011.2	86.4
0°-90°	2328.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2328.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1279	1279	1279	1279	1279	
5°	1235	1254	1251	1260	1275	116
15°	1067	1094	1119	1170	1213	299
25°	851	884	928	1000	1072	391
35°	611	646	708	802	892	381
45°	365	402	487	606	712	287
55°	237	245	288	412	501	213
65°	153	156	180	217	270	152
75°	83	92	94	92	90	88
85°	24	28	27	26	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1278.9	1278.9	1278.9	1278.9	1278.9
2.5°	1262.8	1278.9	1269.5	1272.2	1276.2
5°	1234.7	1253.5	1250.8	1260.2	1274.9
7.5°	1199.8	1219.9	1224.0	1245.4	1266.9
10°	1159.6	1182.4	1193.1	1225.3	1252.1
12.5°	1115.4	1139.5	1158.3	1198.5	1237.4
15°	1067.1	1093.9	1119.4	1170.3	1213.2
17.5°	1017.5	1044.3	1077.8	1134.1	1182.4
20°	963.9	993.4	1032.3	1091.2	1148.9
22.5°	908.9	939.8	981.3	1045.7	1112.7
25°	851.3	883.5	927.7	1000.1	1072.5
27.5°	793.6	825.8	875.4	951.8	1030.9
30°	733.3	766.8	820.4	903.6	982.7
32.5°	673.0	709.2	764.1	852.6	937.1
35°	611.3	646.2	707.8	801.7	891.5
37.5°	549.6	585.8	651.5	752.1	845.9
40°	486.6	524.2	596.6	702.5	800.3
42.5°	423.6	463.8	540.3	651.5	754.8
45°	364.6	402.2	486.6	605.9	711.9
47.5°	320.4	345.9	433.0	561.7	663.6
50°	286.9	300.3	380.7	513.4	605.9
52.5°	261.4	270.8	332.5	461.2	559.0
55°	237.3	245.3	288.2	411.6	501.4
57.5°	215.8	219.9	254.7	363.3	446.4
60°	193.0	197.1	226.6	311.0	383.4
62.5°	172.9	175.6	203.8	261.4	325.8
65°	152.8	155.5	179.6	217.2	269.5
67.5°	134.1	138.1	156.8	177.0	214.5
70°	115.3	123.3	134.1	143.4	164.9
72.5°	99.2	107.2	112.6	115.3	116.6
75°	83.1	92.5	93.8	92.5	89.8
77.5°	67.0	75.1	75.1	72.4	69.7
80°	52.3	59.0	57.6	55.0	50.9
82.5°	38.9	42.9	41.6	38.9	34.9
85°	24.1	28.2	26.8	25.5	20.1
87.5°	12.1	16.1	14.7	13.4	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)