

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: P1060250

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060250
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

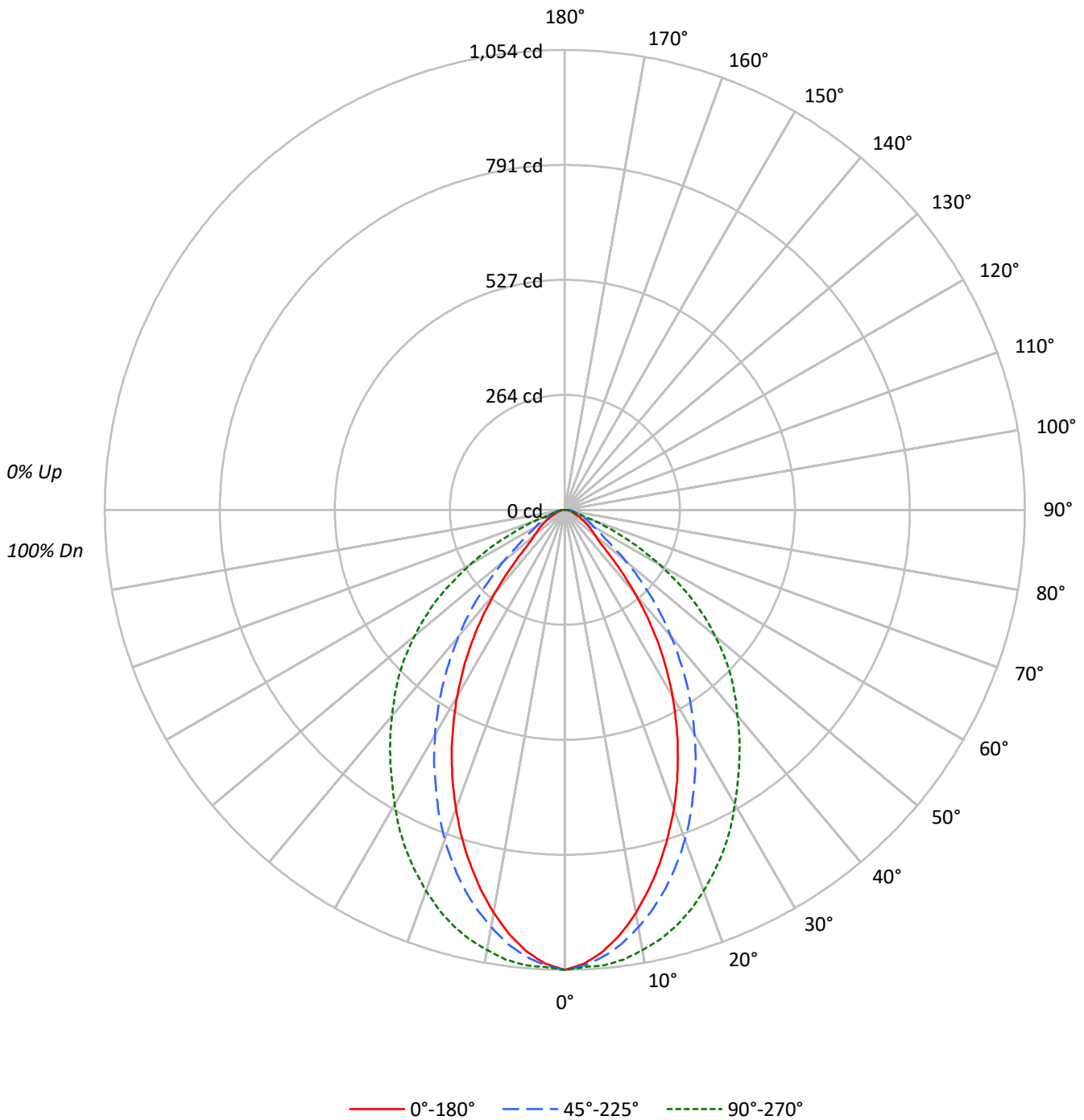
Lumens per Lamp: N/A
Luminaire Lumens: 1482.1 lumens
Efficiency: N/A
Efficacy: 42.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

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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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43				43
9	65	54	46	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9077	9077	9077
5°	8775	8879	9053
10°	8197	8490	8959
15°	7484	7986	8799
20°	6685	7373	8516
25°	5823	6651	8180
30°	4907	5907	7747
35°	3919	5117	7330
40°	2819	4251	6919
45°	1699	3348	6549
50°	1222	2425	6018
55°	1027	1630	5336
60°	832	1293	4295
65°	656	1176	3087
70°	574	979	1654
75°	536	892	802
80°	531	932	734
85°	790	1324	929

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6549 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.8	6.5
10°-20°	253.5	17.1
20°-30°	329.0	22.2
30°-40°	316.2	21.3
40°-50°	234.6	15.8
50°-60°	143.7	9.7
60°-70°	69.8	4.7
70°-80°	26.6	1.8
80°-90°	12.0	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°	679.3	45.8
0°-40°	995.5	67.2
0°-60°	1373.8	92.7
0°-90°	1482.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1482.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1015	1030	1027	1037	1047	94
15°	840	864	896	950	987	234
25°	613	644	700	790	861	280
35°	373	406	487	602	697	231
45°	140	174	275	420	538	116
55°	68	71	109	245	355	61
65°	32	35	58	91	152	33
75°	16	26	27	24	24	17
85°	8	13	13	12	9	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1054.1	1054.1	1054.1	1054.1	1054.1
2.5°	1040.6	1052.7	1044.7	1047.3	1048.7
5°	1015.2	1029.9	1027.2	1036.6	1047.3
7.5°	980.3	997.7	1003.1	1021.9	1039.3
10°	937.4	958.8	970.9	1001.8	1024.6
12.5°	890.4	913.2	936.0	977.6	1008.5
15°	839.5	863.6	895.8	949.5	987.0
17.5°	785.8	812.7	851.6	915.9	960.2
20°	729.5	757.7	804.6	875.7	929.3
22.5°	671.9	701.4	753.7	832.8	895.8
25°	612.9	643.7	700.0	789.9	860.9
27.5°	552.5	584.7	649.1	744.3	822.1
30°	493.5	524.3	594.1	697.3	779.1
32.5°	433.2	465.3	540.4	649.1	737.6
35°	372.8	406.3	486.8	602.1	697.3
37.5°	311.1	347.3	431.8	556.5	657.1
40°	250.8	285.6	378.2	509.6	615.5
42.5°	191.8	229.3	327.2	462.7	576.6
45°	139.5	174.3	274.9	419.7	537.8
47.5°	104.6	126.1	226.6	379.5	494.8
50°	91.2	95.2	181.0	335.3	449.2
52.5°	79.1	81.8	140.8	287.0	403.7
55°	68.4	71.1	108.6	245.4	355.4
57.5°	57.7	60.3	87.2	205.2	300.4
60°	48.3	51.0	75.1	163.6	249.4
62.5°	40.2	41.6	67.1	124.7	199.8
65°	32.2	34.9	57.7	91.2	151.5
67.5°	26.8	29.5	46.9	63.0	105.9
70°	22.8	29.5	38.9	44.3	65.7
72.5°	18.8	26.8	32.2	30.8	30.8
75°	16.1	25.5	26.8	24.1	24.1
77.5°	13.4	22.8	21.5	20.1	18.8
80°	10.7	18.8	18.8	16.1	14.8
82.5°	9.4	14.8	14.8	14.8	12.1
85°	8.0	13.4	13.4	12.1	9.4
87.5°	5.4	10.7	12.1	10.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)