

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1060667

Luminaire Tested: S124RDR-H1020D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060667
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-H1020D927-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

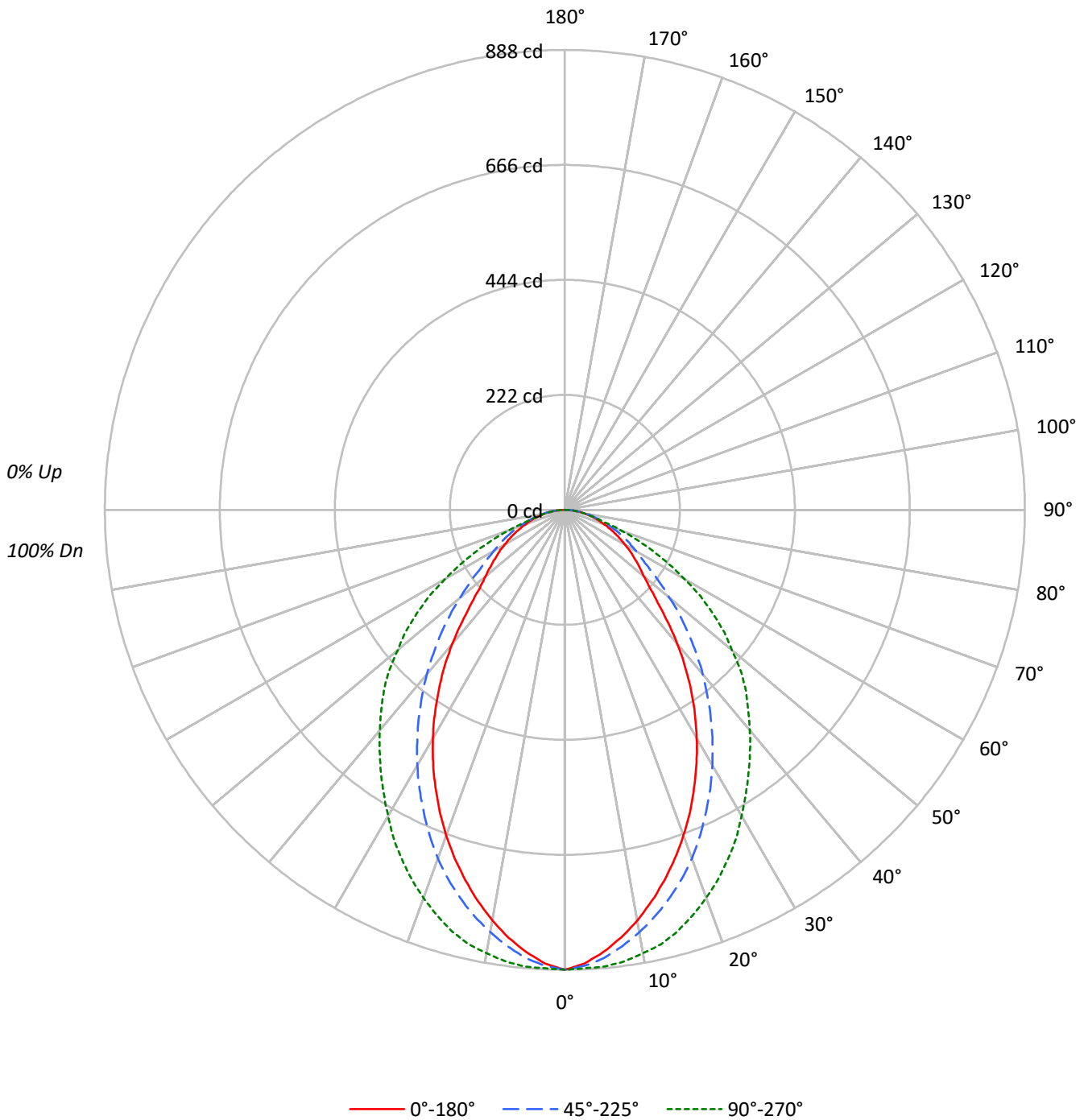
Lumens per Lamp: N/A
Luminaire Lumens: 1616.4 lumens
Efficiency: N/A
Efficacy: 51.8 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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: P1060667

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot



TEST NUMBER: P1060667

CATALOG NUMBER: S124RDR-H1020D927-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°	7645	7645	7645
5°	7409	7506	7650
10°	7039	7243	7600
15°	6604	6928	7508
20°	6131	6567	7308
25°	5614	6119	7074
30°	5062	5663	6782
35°	4461	5166	6506
40°	3797	4655	6246
45°	3082	4114	6018
50°	2669	3541	5635
55°	2473	3004	5226
60°	2308	2709	4585
65°	2162	2541	3812
70°	2014	2344	2883
75°	1920	2166	2076
80°	1800	1984	1755
85°	1660	1838	1383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6018 cd/sqm



TEST NUMBER: P1060667

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-WVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.0	5.1
10°-20°	220.3	13.6
20°-30°	300.8	18.6
30°-40°	315.2	19.5
40°-50°	272.8	16.9
50°-60°	205.0	12.7
60°-70°	132.2	8.2
70°-80°	67.8	4.2
80°-90°	20.2	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°	603.1	37.3
0°-40°	918.3	56.8
0°-60°	1396.1	86.4
0°-90°	1616.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1616.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	888	888	888	888	888	
5°	857	870	868	875	885	80
15°	741	759	777	812	842	208
25°	591	613	644	694	744	271
35°	424	449	491	556	619	264
45°	253	279	338	421	494	200
55°	165	170	200	286	348	148
65°	106	108	125	151	187	105
75°	58	64	65	64	62	61
85°	17	20	19	18	14	19
90°	0	0	0	0	0	



TEST NUMBER: P1060667

CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-WVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	887.8	887.8	887.8	887.8	887.8
2.5°	876.6	887.8	881.3	883.2	886.0
5°	857.1	870.1	868.3	874.8	885.0
7.5°	832.9	846.9	849.7	864.6	879.4
10°	805.0	820.8	828.3	850.6	869.2
12.5°	774.3	791.0	804.1	832.0	859.0
15°	740.8	759.4	777.1	812.4	842.2
17.5°	706.3	725.0	748.2	787.3	820.8
20°	669.1	689.6	716.6	757.5	797.5
22.5°	631.0	652.4	681.2	725.9	772.4
25°	590.9	613.3	644.0	694.2	744.5
27.5°	550.9	573.3	607.7	660.7	715.7
30°	509.1	532.3	569.5	627.2	682.1
32.5°	467.2	492.3	530.5	591.9	650.5
35°	424.4	448.6	491.4	556.5	618.9
37.5°	381.6	406.7	452.3	522.1	587.2
40°	337.8	363.9	414.1	487.6	555.6
42.5°	294.1	322.0	375.0	452.3	523.9
45°	253.1	279.2	337.8	420.6	494.2
47.5°	222.4	240.1	300.6	389.9	460.7
50°	199.2	208.5	264.3	356.4	420.6
52.5°	181.5	188.0	230.8	320.1	388.1
55°	164.7	170.3	200.1	285.7	348.1
57.5°	149.8	152.6	176.8	252.2	309.9
60°	134.0	136.8	157.3	215.9	266.2
62.5°	120.1	121.9	141.5	181.5	226.1
65°	106.1	108.0	124.7	150.8	187.1
67.5°	93.1	95.9	108.9	122.8	148.9
70°	80.0	85.6	93.1	99.6	114.5
72.5°	68.9	74.5	78.2	80.0	81.0
75°	57.7	64.2	65.1	64.2	62.4
77.5°	46.5	52.1	52.1	50.3	48.4
80°	36.3	40.9	40.0	38.2	35.4
82.5°	27.0	29.8	28.8	27.0	24.2
85°	16.8	19.5	18.6	17.7	14.0
87.5°	8.4	11.2	10.2	9.3	5.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060667
 CATALOG NUMBER: S124RDR-H1020D927-X4F0-XX-UDD-WVL-S

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.50	14.98	13.86	15.30	15.61	17.27	18.76	17.64	19.07	19.38
	3H	15.15	16.48	15.53	16.81	17.17	18.39	19.72	18.76	20.04	20.41
	4H	15.82	17.07	16.23	17.42	17.80	18.68	19.92	19.08	20.27	20.65
	6H	16.34	17.49	16.75	17.85	18.25	18.87	20.02	19.29	20.39	20.78
	8H	16.52	17.61	16.95	18.00	18.40	18.93	20.02	19.36	20.41	20.81
	12H	16.64	17.69	17.08	18.07	18.50	18.95	20.00	19.39	20.38	20.81
4H	2H	14.28	15.53	14.68	15.88	16.26	17.43	18.68	17.83	19.03	19.41
	3H	16.14	17.18	16.55	17.58	17.98	18.74	19.78	19.15	20.18	20.58
	4H	16.95	17.88	17.39	18.30	18.74	19.15	20.08	19.58	20.50	20.94
	6H	17.60	18.41	18.06	18.85	19.31	19.47	20.28	19.93	20.72	21.18
	8H	17.83	18.58	18.29	19.03	19.49	19.56	20.32	20.02	20.76	21.23
	12H	18.00	18.67	18.48	19.15	19.62	19.62	20.30	20.11	20.77	21.25
8H	4H	17.30	18.06	17.77	18.50	18.97	19.28	20.04	19.75	20.48	20.95
	6H	18.09	18.72	18.59	19.21	19.69	19.70	20.32	20.19	20.81	21.29
	8H	18.41	18.97	18.93	19.48	19.97	19.85	20.41	20.36	20.92	21.41
	12H	18.68	19.17	19.19	19.67	20.23	19.97	20.47	20.48	20.96	21.53
12H	4H	17.33	18.00	17.81	18.48	18.96	19.29	19.96	19.77	20.44	20.91
	6H	18.16	18.72	18.67	19.23	19.72	19.72	20.28	20.23	20.79	21.28
	8H	18.54	19.04	19.05	19.53	20.10	19.92	20.42	20.43	20.91	21.47