

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: P1060697

Luminaire Tested: S124RDR-H1020D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060697
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1020D950-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

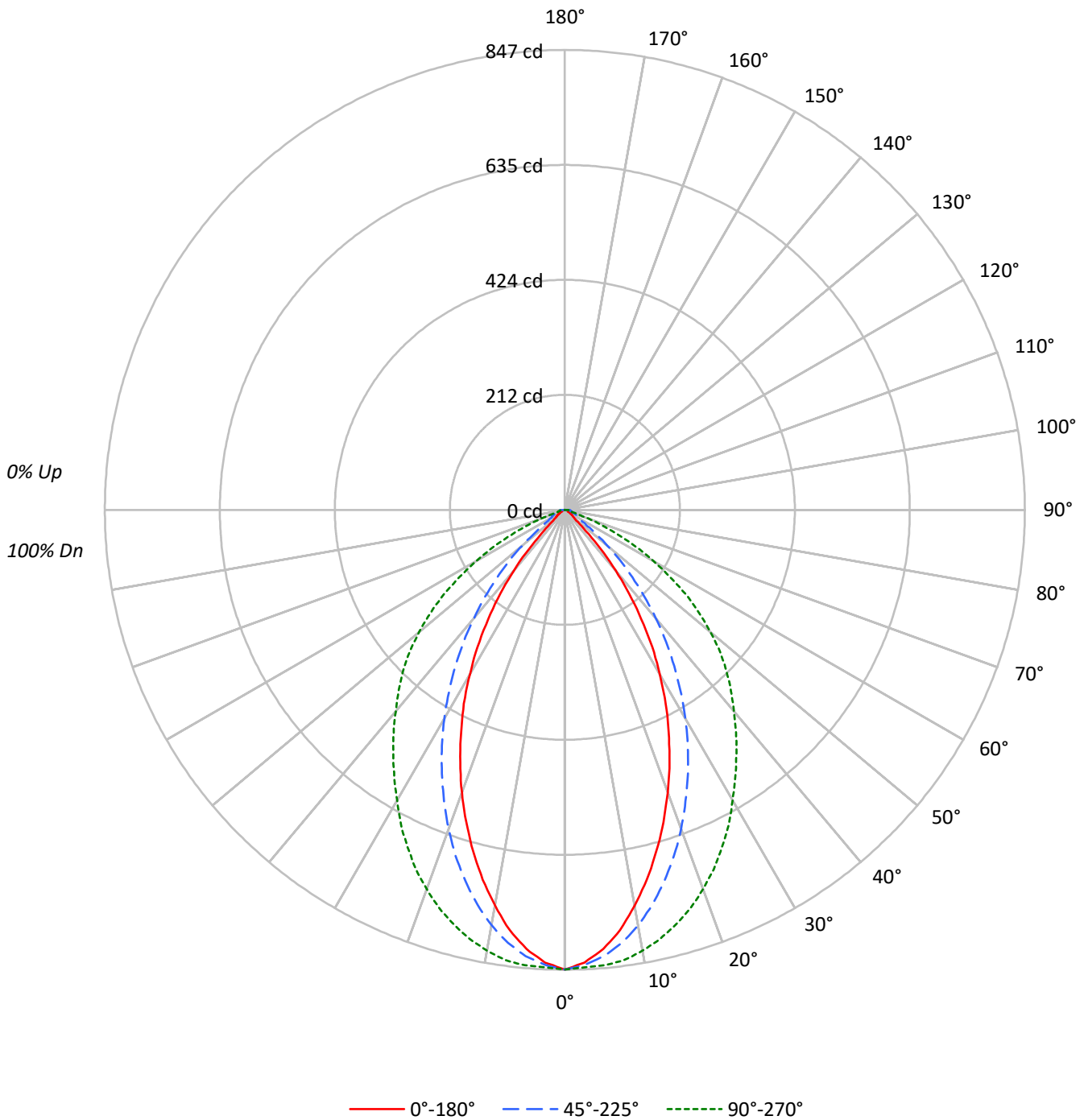
Lumens per Lamp: N/A
Luminaire Lumens: 1062.5 lumens
Efficiency: N/A
Efficacy: 34.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060697

CATALOG NUMBER: S124RDR-H1020D950-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1060697

CATALOG NUMBER: S124RDR-H1020D950-X4F0-XX-UDD-BVL-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			100	
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81			81	
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73			73	
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65			65	
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59			59	
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54			54	
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50			50	
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46			46	
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42			42	
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39			39	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7290	7290	7290
5°	7017	7134	7279
10°	6471	6795	7207
15°	5808	6308	7047
20°	5076	5734	6812
25°	4294	5093	6509
30°	3467	4415	6144
35°	2582	3690	5788
40°	1639	2924	5445
45°	655	2143	5134
50°	285	1366	4687
55°	219	707	4091
60°	155	482	3245
65°	114	479	2217
70°	113	423	1017
75°	150	449	409
80°	223	501	446
85°	445	889	662

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5134 cd/sqm



TEST NUMBER: P1060697

CATALOG NUMBER: S124RDR-H1020D950-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.5	7.3
10°-20°	199.9	18.8
20°-30°	252.5	23.8
30°-40°	231.9	21.8
40°-50°	158.1	14.9
50°-60°	85.7	8.1
60°-70°	36.4	3.4
70°-80°	12.6	1.2
80°-90°	8.0	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°	529.8	49.9
0°-40°	761.7	71.7
0°-60°	1005.6	94.6
0°-90°	1062.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1062.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	812	824	825	832	842	75
15°	652	673	708	758	790	182
25°	452	481	536	619	685	207
35°	246	278	351	461	551	153
45°	54	86	176	312	422	50
55°	15	16	47	172	272	13
65°	6	7	24	54	109	6
75°	4	12	14	12	12	5
85°	4	9	9	9	7	4
90°	0	0	0	0	0	



TEST NUMBER: P1060697

CATALOG NUMBER: S124RDR-H1020D950-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	846.6	846.6	846.6	846.6	846.6
2.5°	834.3	844.4	838.8	841.0	843.2
5°	811.8	824.2	825.3	832.0	842.1
7.5°	780.4	795.0	804.0	820.8	836.5
10°	740.1	758.0	777.1	804.0	824.2
12.5°	697.5	716.5	744.6	782.7	809.6
15°	651.5	672.8	707.6	758.0	790.5
17.5°	603.3	626.8	668.3	727.7	769.2
20°	553.9	579.7	625.7	693.0	743.4
22.5°	503.5	530.4	580.8	657.1	716.5
25°	451.9	481.0	536.0	619.0	685.1
27.5°	402.6	429.5	490.0	580.8	653.7
30°	348.7	379.0	444.0	541.6	617.9
32.5°	299.4	328.5	396.9	501.2	584.2
35°	245.6	278.1	351.0	460.9	550.6
37.5°	195.1	226.5	306.1	422.7	518.1
40°	145.8	178.3	260.1	384.6	484.4
42.5°	97.6	132.3	216.4	345.4	453.0
45°	53.8	86.3	176.0	311.7	421.6
47.5°	28.0	47.1	137.9	278.1	388.0
50°	21.3	25.8	102.0	241.1	349.9
52.5°	17.9	19.1	69.5	204.1	311.7
55°	14.6	15.7	47.1	171.6	272.5
57.5°	11.2	12.3	33.6	140.2	228.8
60°	9.0	10.1	28.0	107.6	188.4
62.5°	6.7	7.8	26.9	79.6	148.0
65°	5.6	6.7	23.5	53.8	108.8
67.5°	4.5	6.7	20.2	34.8	72.9
70°	4.5	9.0	16.8	22.4	40.4
72.5°	4.5	10.1	14.6	14.6	14.6
75°	4.5	12.3	13.5	12.3	12.3
77.5°	4.5	11.2	11.2	11.2	11.2
80°	4.5	10.1	10.1	10.1	9.0
82.5°	4.5	9.0	10.1	10.1	7.8
85°	4.5	9.0	9.0	9.0	6.7
87.5°	3.4	9.0	9.0	9.0	4.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060697

CATALOG NUMBER: S124RDR-H1020D950-X4F0-XX-UDD-BVL-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	0.00	0.00	0.00	0.00	0.00	15.35	16.62	15.71	16.93	17.25
	3H	0.00	0.00	0.00	0.31	0.67	15.70	16.83	16.08	17.16	17.52
	4H	0.24	1.29	0.64	1.64	2.02	15.67	16.72	16.07	17.07	17.45
	6H	1.61	2.57	2.03	2.94	3.34	15.64	16.60	16.06	16.98	17.37
	8H	2.29	3.21	2.73	3.60	4.00	15.63	16.54	16.06	16.93	17.34
	12H	3.10	3.97	3.53	4.36	4.79	15.63	16.50	16.06	16.88	17.31
4H	2H	1.03	2.08	1.43	2.43	2.81	15.15	16.20	15.55	16.55	16.93
	3H	2.46	3.31	2.87	3.72	4.12	15.54	16.40	15.96	16.80	17.21
	4H	3.91	4.67	4.34	5.09	5.53	15.52	16.29	15.96	16.71	17.15
	6H	5.16	5.81	5.62	6.26	6.73	15.54	16.20	16.01	16.65	17.11
	8H	5.73	6.34	6.20	6.79	7.26	15.55	16.17	16.02	16.61	17.09
	12H	6.41	6.95	6.89	7.43	7.91	15.59	16.13	16.07	16.61	17.09
8H	4H	4.98	5.60	5.45	6.05	6.52	15.42	16.04	15.89	16.49	16.96
	6H	6.60	7.10	7.10	7.60	8.08	15.47	15.98	15.98	16.47	16.95
	8H	7.44	7.89	7.96	8.41	8.90	15.53	15.98	16.05	16.50	16.99
	12H	8.41	8.81	8.92	9.30	9.88	15.65	16.05	16.16	16.54	17.11
12H	4H	5.17	5.72	5.66	6.20	6.67	15.39	15.93	15.87	16.41	16.89
	6H	6.95	7.40	7.47	7.91	8.41	15.44	15.89	15.96	16.41	16.90
	8H	7.97	8.37	8.49	8.87	9.44	15.55	15.95	16.06	16.44	17.01