

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: P1060931

Luminaire Tested: S124RDR-H575D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060931
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-H575D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

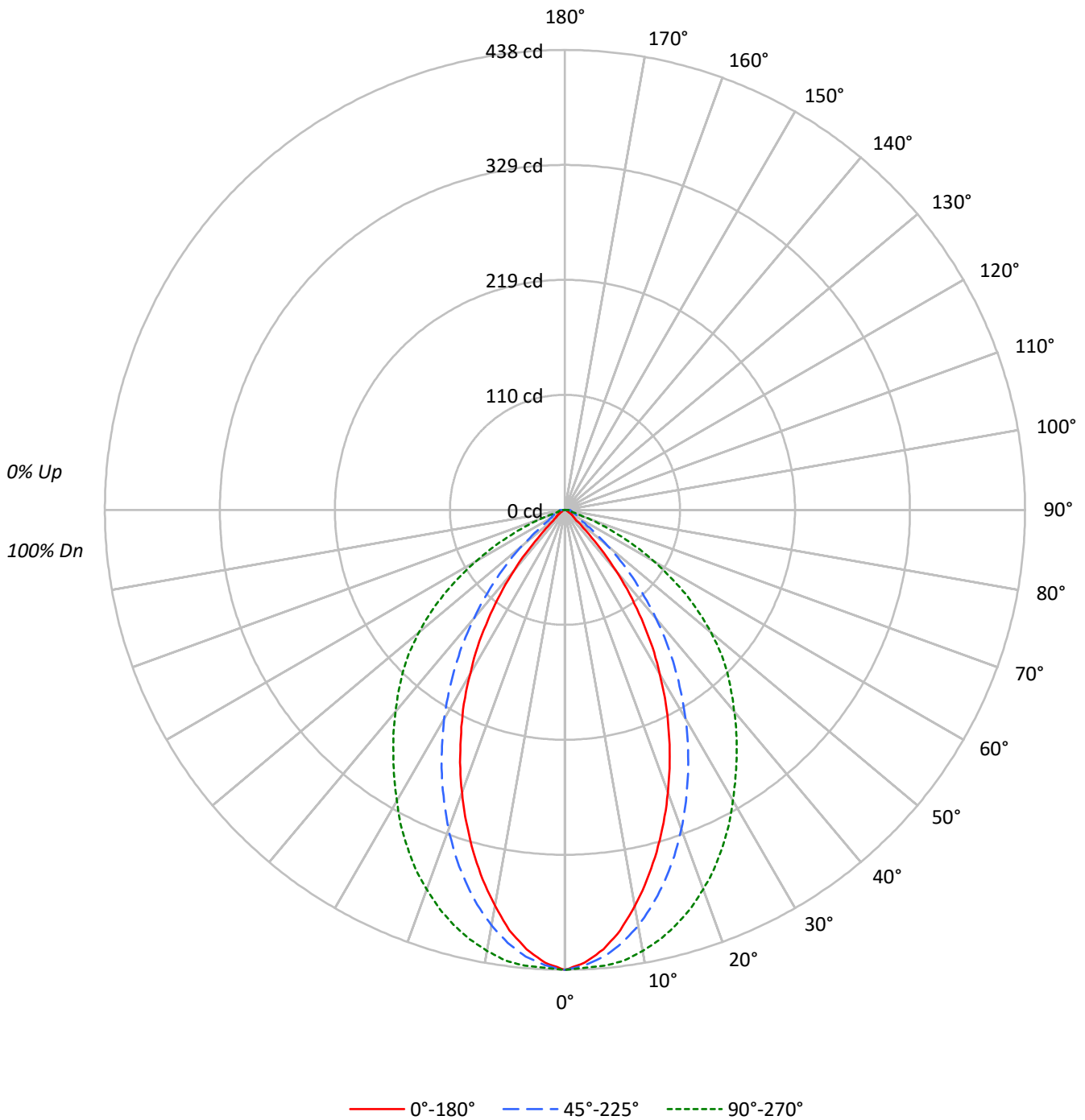
Lumens per Lamp: N/A
Luminaire Lumens: 549.8 lumens
Efficiency: N/A
Efficacy: 31.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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: P1060931

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1060931

CATALOG NUMBER: S124RDR-H575D940-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	103	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	88	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°	3773	3773	3773
5°	3631	3692	3767
10°	3349	3517	3729
15°	3006	3265	3647
20°	2627	2967	3525
25°	2222	2636	3369
30°	1795	2285	3180
35°	1336	1909	2995
40°	848	1513	2818
45°	340	1109	2657
50°	147	707	2426
55°	113	366	2117
60°	79	250	1679
65°	59	249	1147
70°	58	219	526
75°	77	233	213
80°	114	258	228
85°	227	454	346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2657 cd/sqm



TEST NUMBER: P1060931

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	7.3
10°-20°	103.5	18.8
20°-30°	130.7	23.8
30°-40°	120.0	21.8
40°-50°	81.8	14.9
50°-60°	44.4	8.1
60°-70°	18.8	3.4
70°-80°	6.5	1.2
80°-90°	4.1	0.7
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°	274.2	49.9
0°-40°	394.2	71.7
0°-60°	520.4	94.6
0°-90°	549.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	549.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	438	438	438	438	438	
5°	420	426	427	431	436	39
15°	337	348	366	392	409	94
25°	234	249	277	320	355	107
35°	127	144	182	238	285	79
45°	28	45	91	161	218	26
55°	8	8	24	89	141	7
65°	3	4	12	28	56	3
75°	2	6	7	6	6	2
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1060931

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	438.1	438.1	438.1	438.1	438.1
2.5°	431.8	437.0	434.1	435.2	436.4
5°	420.1	426.5	427.1	430.6	435.8
7.5°	403.9	411.4	416.1	424.8	432.9
10°	383.0	392.3	402.2	416.1	426.5
12.5°	361.0	370.8	385.3	405.1	419.0
15°	337.2	348.2	366.2	392.3	409.1
17.5°	312.2	324.4	345.9	376.6	398.1
20°	286.7	300.0	323.8	358.6	384.7
22.5°	260.6	274.5	300.6	340.1	370.8
25°	233.9	249.0	277.4	320.3	354.6
27.5°	208.3	222.3	253.6	300.6	338.3
30°	180.5	196.1	229.8	280.3	319.8
32.5°	154.9	170.0	205.4	259.4	302.3
35°	127.1	143.9	181.6	238.5	284.9
37.5°	101.0	117.2	158.4	218.8	268.1
40°	75.4	92.3	134.6	199.0	250.7
42.5°	50.5	68.5	112.0	178.7	234.4
45°	27.9	44.7	91.1	161.3	218.2
47.5°	14.5	24.4	71.4	143.9	200.8
50°	11.0	13.3	52.8	124.8	181.1
52.5°	9.3	9.9	36.0	105.6	161.3
55°	7.5	8.1	24.4	88.8	141.0
57.5°	5.8	6.4	17.4	72.5	118.4
60°	4.6	5.2	14.5	55.7	97.5
62.5°	3.5	4.1	13.9	41.2	76.6
65°	2.9	3.5	12.2	27.9	56.3
67.5°	2.3	3.5	10.4	18.0	37.7
70°	2.3	4.6	8.7	11.6	20.9
72.5°	2.3	5.2	7.5	7.5	7.5
75°	2.3	6.4	7.0	6.4	6.4
77.5°	2.3	5.8	5.8	5.8	5.8
80°	2.3	5.2	5.2	5.2	4.6
82.5°	2.3	4.6	5.2	5.2	4.1
85°	2.3	4.6	4.6	4.6	3.5
87.5°	1.7	4.6	4.6	4.6	2.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060931
 CATALOG NUMBER: S124RDR-H575D940-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	13.05	14.33	13.42	14.64	14.96
	3H	0.00	0.00	0.00	0.00	0.00	13.41	14.54	13.79	14.87	15.23
	4H	0.00	0.00	0.00	0.00	0.00	13.38	14.42	13.78	14.78	15.16
	6H	0.00	0.26	0.00	0.63	1.03	13.35	14.31	13.77	14.68	15.08
	8H	0.00	0.88	0.41	1.28	1.68	13.34	14.25	13.77	14.64	15.05
	12H	0.77	1.64	1.20	2.02	2.45	13.34	14.21	13.77	14.59	15.02
4H	2H	0.00	0.00	0.00	0.16	0.55	12.86	13.91	13.26	14.26	14.64
	3H	0.17	1.02	0.58	1.43	1.83	13.25	14.11	13.66	14.51	14.91
	4H	1.62	2.39	2.06	2.81	3.25	13.23	13.99	13.67	14.42	14.86
	6H	2.86	3.52	3.32	3.96	4.43	13.25	13.91	13.71	14.35	14.82
	8H	3.42	4.04	3.89	4.48	4.96	13.26	13.87	13.73	14.32	14.79
	12H	4.09	4.63	4.57	5.11	5.59	13.30	13.84	13.78	14.32	14.80
8H	4H	2.70	3.31	3.17	3.76	4.23	13.13	13.75	13.60	14.19	14.67
	6H	4.30	4.80	4.80	5.30	5.78	13.18	13.68	13.68	14.18	14.66
	8H	5.12	5.57	5.65	6.09	6.58	13.24	13.69	13.76	14.21	14.70
	12H	6.08	6.48	6.59	6.97	7.54	13.35	13.75	13.87	14.25	14.82
12H	4H	2.89	3.43	3.37	3.91	4.39	13.09	13.64	13.58	14.12	14.59
	6H	4.64	5.09	5.17	5.61	6.10	13.15	13.60	13.67	14.12	14.61
	8H	5.65	6.05	6.17	6.55	7.12	13.25	13.65	13.77	14.15	14.72