

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: P1060946

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060946  
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-H575D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

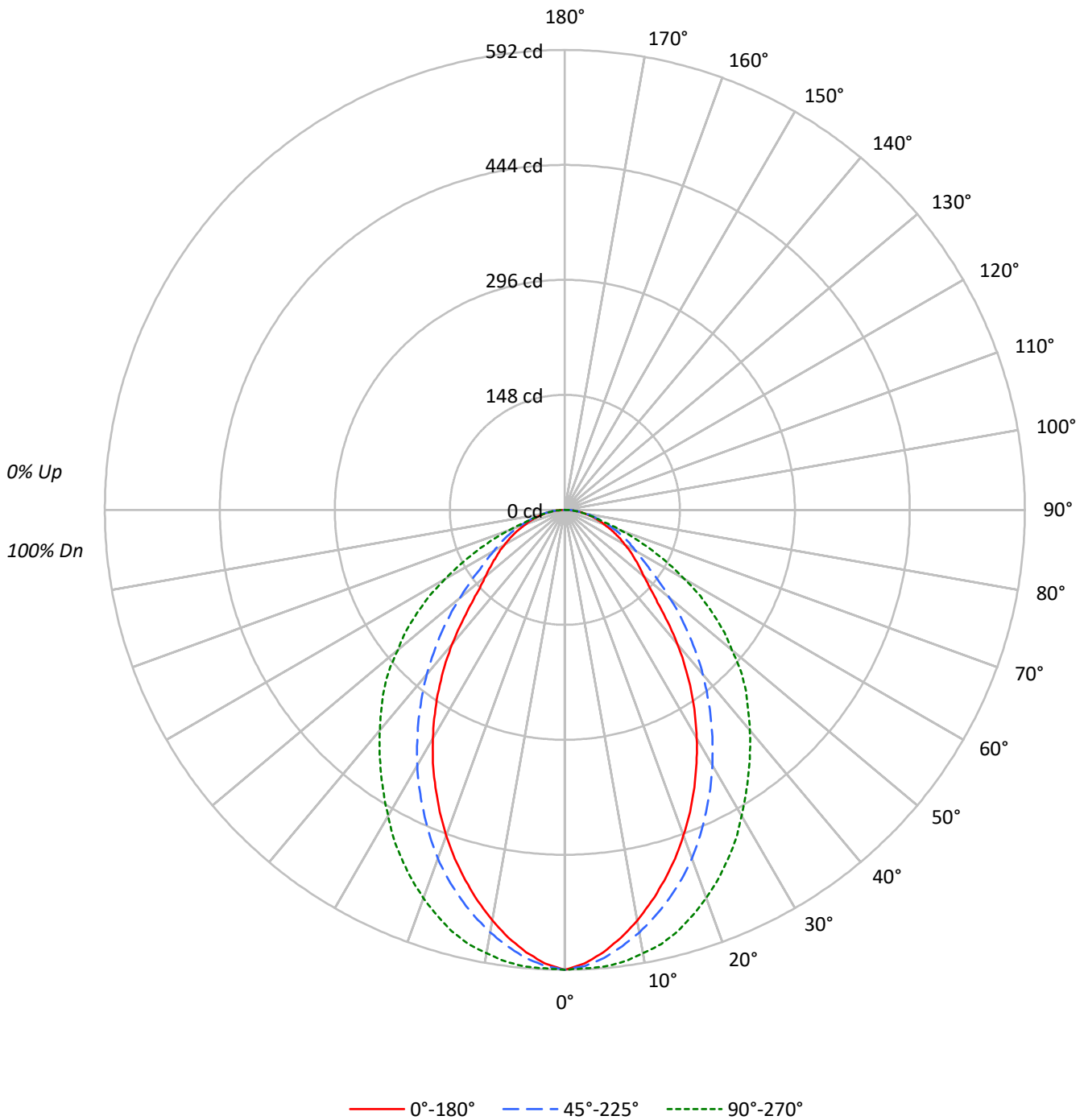
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1077.7 lumens  
Efficiency: N/A  
Efficacy: 61.9 lumens/watt  
Spacing Criteria (0/90/45): 0.92 / 1.15 / 1.1  
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

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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				
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°	5098	5098	5098
5°	4940	5004	5101
10°	4693	4829	5068
15°	4403	4619	5007
20°	4088	4378	4873
25°	3744	4080	4716
30°	3375	3776	4522
35°	2975	3444	4337
40°	2531	3104	4164
45°	2056	2742	4013
50°	1779	2360	3758
55°	1648	2003	3485
60°	1540	1807	3057
65°	1441	1693	2541
70°	1344	1564	1921
75°	1281	1444	1384
80°	1200	1324	1170
85°	1107	1225	919

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4013 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.7	5.1
10°-20°	146.9	13.6
20°-30°	200.6	18.6
30°-40°	210.2	19.5
40°-50°	181.9	16.9
50°-60°	136.7	12.7
60°-70°	88.1	8.2
70°-80°	45.2	4.2
80°-90°	13.5	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°	402.2	37.3
0°-40°	612.3	56.8
0°-60°	930.9	86.4
0°-90°	1077.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1077.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	572	580	579	583	590	53
15°	494	506	518	542	562	138
25°	394	409	429	463	496	181
35°	283	299	328	371	413	176
45°	169	186	225	280	330	133
55°	110	114	133	190	232	99
65°	71	72	83	100	125	70
75°	38	43	43	43	42	41
85°	11	13	12	12	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	592.0	592.0	592.0	592.0	592.0
2.5°	584.5	592.0	587.6	588.9	590.7
5°	571.5	580.2	578.9	583.3	590.1
7.5°	555.4	564.7	566.5	576.5	586.4
10°	536.7	547.3	552.3	567.1	579.6
12.5°	516.3	527.4	536.1	554.7	572.7
15°	493.9	506.3	518.1	541.7	561.6
17.5°	471.0	483.4	498.9	525.0	547.3
20°	446.1	459.8	477.8	505.1	531.8
22.5°	420.7	435.0	454.2	484.0	515.0
25°	394.0	408.9	429.4	462.9	496.4
27.5°	367.3	382.2	405.2	440.6	477.2
30°	339.4	354.9	379.8	418.2	454.8
32.5°	311.5	328.3	353.7	394.6	433.7
35°	283.0	299.1	327.6	371.1	412.6
37.5°	254.4	271.2	301.6	348.1	391.5
40°	225.2	242.6	276.1	325.1	370.4
42.5°	196.1	214.7	250.1	301.6	349.3
45°	168.8	186.2	225.2	280.5	329.5
47.5°	148.3	160.1	200.4	260.0	307.2
50°	132.8	139.0	176.2	237.7	280.5
52.5°	121.0	125.3	153.9	213.5	258.8
55°	109.8	113.6	133.4	190.5	232.1
57.5°	99.9	101.8	117.9	168.2	206.6
60°	89.4	91.2	104.9	144.0	177.5
62.5°	80.0	81.3	94.3	121.0	150.8
65°	70.7	72.0	83.1	100.5	124.7
67.5°	62.1	63.9	72.6	81.9	99.3
70°	53.4	57.1	62.1	66.4	76.3
72.5°	45.9	49.6	52.1	53.4	54.0
75°	38.5	42.8	43.4	42.8	41.6
77.5°	31.0	34.7	34.7	33.5	32.3
80°	24.2	27.3	26.7	25.4	23.6
82.5°	18.0	19.9	19.2	18.0	16.1
85°	11.2	13.0	12.4	11.8	9.3
87.5°	5.6	7.4	6.8	6.2	3.7
90°	0.0	0.0	0.0	0.0	0.0

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**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	12.09	13.58	12.46	13.89	14.20	15.87	17.35	16.23	17.66	17.98
	3H	13.75	15.08	14.13	15.41	15.77	16.98	18.31	17.36	18.64	19.00
	4H	14.42	15.66	14.82	16.01	16.39	17.27	18.51	17.67	18.86	19.24
	6H	14.93	16.08	15.34	16.45	16.84	17.47	18.62	17.88	18.98	19.38
	8H	15.11	16.21	15.54	16.60	17.00	17.52	18.61	17.95	19.00	19.41
	12H	15.24	16.28	15.67	16.67	17.10	17.55	18.59	17.98	18.98	19.41
4H	2H	12.87	14.12	13.27	14.47	14.85	16.02	17.27	16.42	17.62	18.00
	3H	14.74	15.77	15.15	16.17	16.57	17.34	18.37	17.75	18.77	19.17
	4H	15.55	16.47	15.98	16.89	17.33	17.74	18.67	18.18	19.09	19.53
	6H	16.19	17.00	16.65	17.44	17.90	18.06	18.87	18.52	19.31	19.77
	8H	16.42	17.17	16.88	17.62	18.09	18.15	18.91	18.62	19.35	19.82
	12H	16.59	17.26	17.07	17.74	18.21	18.21	18.89	18.70	19.37	19.84
8H	4H	15.89	16.65	16.36	17.09	17.56	17.88	18.63	18.34	19.08	19.54
	6H	16.69	17.31	17.18	17.80	18.28	18.29	18.91	18.79	19.40	19.88
	8H	17.01	17.57	17.52	18.08	18.57	18.44	19.00	18.95	19.51	20.00
	12H	17.27	17.77	17.78	18.26	18.83	18.56	19.06	19.07	19.55	20.12
12H	4H	15.92	16.60	16.41	17.08	17.55	17.88	18.55	18.36	19.03	19.50
	6H	16.75	17.31	17.26	17.82	18.31	18.31	18.87	18.83	19.38	19.87
	8H	17.14	17.63	17.65	18.12	18.69	18.51	19.01	19.02	19.50	20.06