

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: P1060937

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060937  
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-H575D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

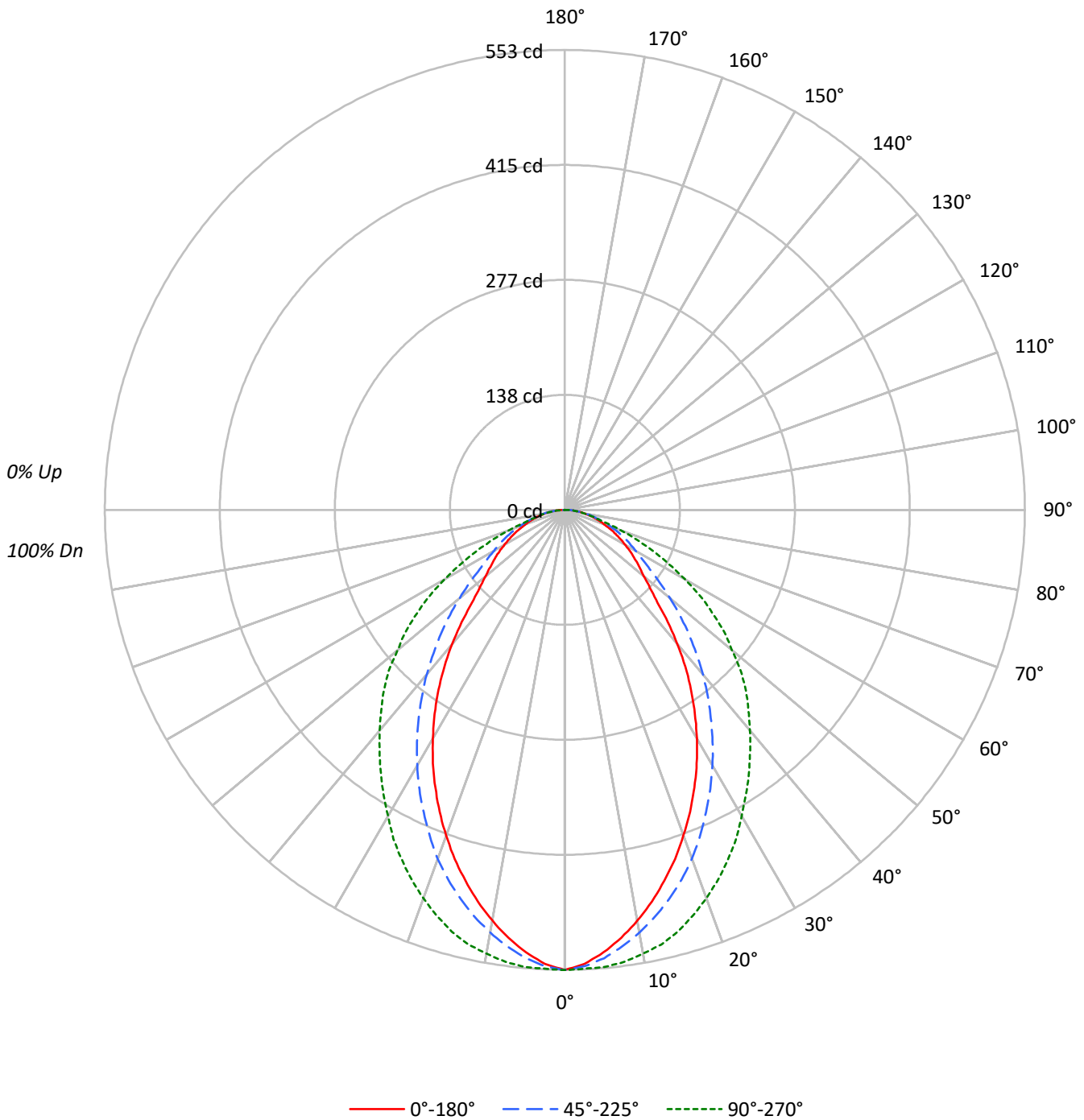
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1007.4 lumens  
Efficiency: N/A  
Efficacy: 57.9 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): 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										
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	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65														
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41	41	41	41	41	41	41														
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34	34	34	34	34	34	34														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31	31	31	31	31	31	31														

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4765	4765	4765
5°	4618	4677	4768
10°	4387	4514	4737
15°	4116	4317	4679
20°	3821	4093	4555
25°	3499	3814	4409
30°	3155	3530	4227
35°	2780	3219	4055
40°	2366	2901	3893
45°	1922	2563	3751
50°	1663	2206	3513
55°	1542	1872	3256
60°	1438	1688	2857
65°	1347	1583	2376
70°	1256	1460	1795
75°	1198	1351	1294
80°	1121	1235	1091
85°	1028	1146	860

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3751 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	5.1
10°-20°	137.3	13.6
20°-30°	187.5	18.6
30°-40°	196.4	19.5
40°-50°	170.0	16.9
50°-60°	127.8	12.7
60°-70°	82.4	8.2
70°-80°	42.2	4.2
80°-90°	12.6	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°	375.9	37.3
0°-40°	572.3	56.8
0°-60°	870.1	86.4
0°-90°	1007.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1007.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	534	542	541	545	552	50
15°	462	473	484	506	525	129
25°	368	382	401	433	464	169
35°	264	280	306	347	386	165
45°	158	174	210	262	308	124
55°	103	106	125	178	217	92
65°	66	67	78	94	117	66
75°	36	40	41	40	39	38
85°	10	12	12	11	9	12
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	553.3	553.3	553.3	553.3	553.3
2.5°	546.4	553.3	549.3	550.4	552.2
5°	534.2	542.3	541.1	545.2	551.6
7.5°	519.1	527.8	529.5	538.8	548.1
10°	501.7	511.6	516.2	530.1	541.7
12.5°	482.6	493.0	501.1	518.5	535.3
15°	461.7	473.3	484.3	506.3	524.9
17.5°	440.2	451.8	466.3	490.7	511.6
20°	417.0	429.8	446.6	472.1	497.1
22.5°	393.2	406.6	424.6	452.4	481.4
25°	368.3	382.2	401.4	432.7	464.0
27.5°	343.4	357.3	378.7	411.8	446.0
30°	317.3	331.8	355.0	390.9	425.1
32.5°	291.2	306.8	330.6	368.9	405.4
35°	264.5	279.6	306.2	346.8	385.7
37.5°	237.8	253.5	281.9	325.4	366.0
40°	210.5	226.8	258.1	303.9	346.3
42.5°	183.3	200.7	233.7	281.9	326.5
45°	157.8	174.0	210.5	262.2	308.0
47.5°	138.6	149.6	187.3	243.0	287.1
50°	124.1	129.9	164.7	222.1	262.2
52.5°	113.1	117.2	143.8	199.5	241.9
55°	102.7	106.1	124.7	178.1	216.9
57.5°	93.4	95.1	110.2	157.2	193.1
60°	83.5	85.3	98.0	134.6	165.9
62.5°	74.8	76.0	88.2	113.1	140.9
65°	66.1	67.3	77.7	94.0	116.6
67.5°	58.0	59.7	67.9	76.6	92.8
70°	49.9	53.4	58.0	62.1	71.3
72.5°	42.9	46.4	48.7	49.9	50.5
75°	36.0	40.0	40.6	40.0	38.9
77.5°	29.0	32.5	32.5	31.3	30.2
80°	22.6	25.5	24.9	23.8	22.0
82.5°	16.8	18.6	18.0	16.8	15.1
85°	10.4	12.2	11.6	11.0	8.7
87.5°	5.2	7.0	6.4	5.8	3.5
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	11.86	13.34	12.22	13.65	13.97	15.63	17.11	16.00	17.43	17.74
	3H	13.51	14.84	13.89	15.17	15.53	16.74	18.07	17.12	18.40	18.76
	4H	14.18	15.43	14.58	15.78	16.16	17.03	18.28	17.43	18.63	19.01
	6H	14.69	15.84	15.11	16.21	16.60	17.23	18.38	17.64	18.75	19.14
	8H	14.88	15.97	15.30	16.36	16.76	17.29	18.38	17.71	18.77	19.17
	12H	15.00	16.05	15.43	16.43	16.86	17.31	18.36	17.74	18.74	19.17
4H	2H	12.64	13.88	13.04	14.23	14.61	15.79	17.03	16.19	17.38	17.76
	3H	14.50	15.53	14.91	15.93	16.34	17.10	18.13	17.51	18.53	18.94
	4H	15.31	16.24	15.74	16.65	17.09	17.51	18.44	17.94	18.85	19.29
	6H	15.96	16.76	16.41	17.21	17.67	17.83	18.63	18.28	19.08	19.54
	8H	16.18	16.94	16.65	17.38	17.85	17.92	18.67	18.38	19.12	19.58
	12H	16.35	17.03	16.84	17.51	17.98	17.98	18.65	18.46	19.13	19.60
8H	4H	15.66	16.41	16.12	16.86	17.33	17.64	18.40	18.11	18.84	19.31
	6H	16.45	17.07	16.95	17.57	18.04	18.05	18.68	18.55	19.17	19.65
	8H	16.77	17.33	17.29	17.84	18.33	18.21	18.76	18.72	19.27	19.76
	12H	17.04	17.53	17.55	18.02	18.59	18.33	18.82	18.84	19.32	19.88
12H	4H	15.69	16.36	16.17	16.84	17.31	17.65	18.32	18.13	18.80	19.27
	6H	16.51	17.07	17.03	17.58	18.07	18.08	18.64	18.59	19.15	19.64
	8H	16.90	17.40	17.41	17.89	18.45	18.28	18.77	18.79	19.26	19.83