

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: P1060933

Luminaire Tested: S124RDR-H575D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060933  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D940-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

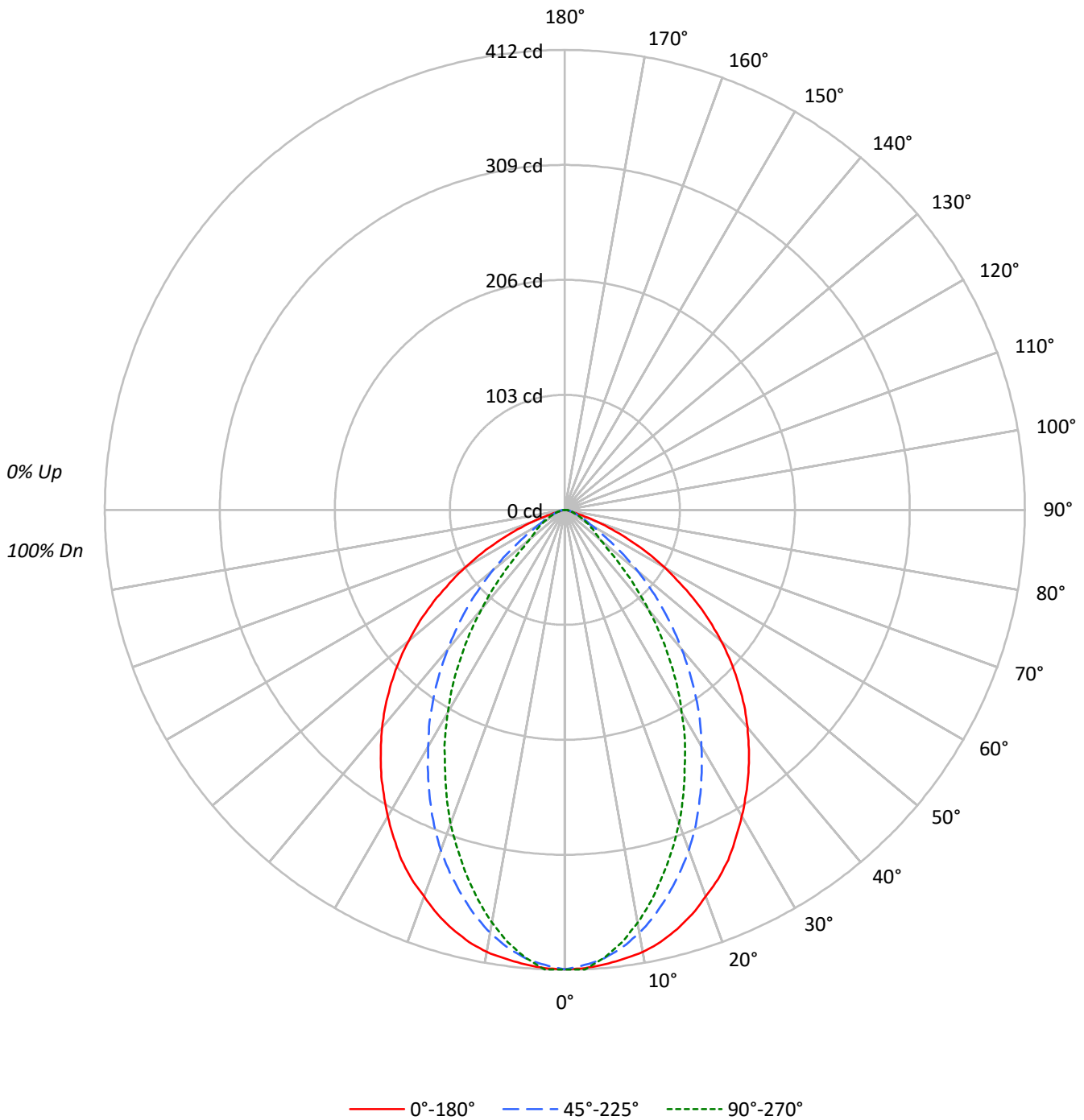
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 606.8 lumens  
Efficiency: N/A  
Efficacy: 34.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
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: P1060933

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-SVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1060933

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-SVL-B

**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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	3544	3544	3544
5°	3533	3487	3483
10°	3518	3366	3284
15°	3468	3184	3023
20°	3379	2975	2741
25°	3288	2715	2412
30°	3153	2432	2081
35°	3016	2151	1719
40°	2861	1831	1303
45°	2676	1497	876
50°	2446	1133	544
55°	2150	749	461
60°	1777	460	379
65°	1288	355	308
70°	700	262	234
75°	153	193	213
80°	114	144	174
85°	119	119	168

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2676 cd/sqm



TEST NUMBER: P1060933

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-SVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.1	6.3
10°-20°	101.3	16.7
20°-30°	134.2	22.1
30°-40°	133.2	21.9
40°-50°	102.5	16.9
50°-60°	61.1	10.1
60°-70°	27.8	4.6
70°-80°	7.2	1.2
80°-90°	1.6	0.3
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°	273.6	45.1
0°-40°	406.7	67.0
0°-60°	570.3	94.0
0°-90°	606.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	606.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	409	409	403	403	403	39
15°	389	379	357	345	339	109
25°	346	321	286	262	254	159
35°	287	251	205	173	164	179
45°	220	177	123	86	72	169
55°	143	102	50	31	31	128
65°	63	38	17	15	15	64
75°	5	6	6	6	6	10
85°	1	1	1	2	2	1
90°	0	0	0	0	0	



TEST NUMBER: P1060933

CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-SVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	411.6	411.6	411.6	411.6	411.6
2.5°	411.0	411.6	408.1	411.0	412.1
5°	408.7	409.2	403.4	403.4	402.9
7.5°	405.8	404.6	395.3	391.9	390.7
10°	402.3	398.2	384.9	377.9	375.6
12.5°	396.5	390.1	372.1	362.3	358.2
15°	389.0	379.1	357.1	344.9	339.1
17.5°	379.7	367.5	341.4	325.8	319.4
20°	368.7	352.4	324.6	304.9	299.1
22.5°	358.2	337.9	306.1	283.5	277.1
25°	346.1	321.1	285.8	262.0	253.9
27.5°	331.6	304.9	265.5	241.1	233.0
30°	317.1	287.5	244.6	219.1	209.3
32.5°	302.0	269.5	225.5	196.5	187.2
35°	286.9	251.0	204.6	173.3	163.5
37.5°	270.7	232.4	183.8	151.3	140.3
40°	254.5	214.5	162.9	129.8	115.9
42.5°	237.7	195.9	142.6	107.8	93.9
45°	219.7	176.8	122.9	85.8	71.9
47.5°	201.7	158.8	103.2	64.3	51.6
50°	182.6	139.7	84.6	47.0	40.6
52.5°	163.5	121.2	66.1	36.5	34.8
55°	143.2	102.0	49.9	31.3	30.7
57.5°	122.3	84.6	35.9	27.2	26.1
60°	103.2	68.4	26.7	23.2	22.0
62.5°	83.5	51.6	22.0	19.1	18.0
65°	63.2	37.7	17.4	15.1	15.1
67.5°	45.8	25.5	13.9	12.2	11.6
70°	27.8	15.7	10.4	9.9	9.3
72.5°	13.9	9.3	8.1	7.5	7.5
75°	4.6	5.8	5.8	6.4	6.4
77.5°	3.5	4.1	4.1	4.6	4.6
80°	2.3	2.9	2.9	3.5	3.5
82.5°	1.7	1.7	2.3	2.3	2.9
85°	1.2	1.2	1.2	1.7	1.7
87.5°	0.6	0.6	0.6	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060933  
 CATALOG NUMBER: S124RDR-H575D940-X4F0-XX-UDD-SVL-B

**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	13.51	14.85	13.88	15.16	15.47	5.06	6.39	5.42	6.70	7.02
	3H	14.02	15.20	14.40	15.53	15.90	5.88	7.06	6.26	7.39	7.75
	4H	13.99	15.09	14.39	15.44	15.82	6.16	7.26	6.56	7.61	7.99
	6H	13.92	14.93	14.34	15.30	15.70	6.33	7.34	6.75	7.71	8.10
	8H	13.89	14.84	14.32	15.23	15.64	6.40	7.35	6.83	7.74	8.15
	12H	13.85	14.76	14.28	15.14	15.57	6.44	7.35	6.87	7.73	8.17
4H	2H	13.36	14.45	13.76	14.80	15.19	5.50	6.60	5.90	6.95	7.33
	3H	13.91	14.80	14.32	15.21	15.61	6.47	7.36	6.88	7.77	8.17
	4H	13.88	14.67	14.31	15.09	15.54	6.83	7.63	7.27	8.05	8.49
	6H	13.83	14.51	14.29	14.96	15.42	7.08	7.77	7.55	8.22	8.68
	8H	13.78	14.42	14.25	14.87	15.34	7.17	7.81	7.64	8.26	8.73
	12H	13.74	14.31	14.23	14.79	15.26	7.24	7.81	7.73	8.29	8.77
8H	4H	13.77	14.41	14.24	14.86	15.33	6.92	7.56	7.39	8.01	8.48
	6H	13.71	14.23	14.21	14.73	15.21	7.23	7.75	7.74	8.25	8.73
	8H	13.66	14.13	14.18	14.64	15.14	7.36	7.83	7.89	8.35	8.84
	12H	13.63	14.04	14.14	14.54	15.11	7.49	7.91	8.01	8.40	8.97
12H	4H	13.73	14.29	14.21	14.77	15.25	6.90	7.46	7.38	7.94	8.42
	6H	13.65	14.12	14.17	14.64	15.13	7.21	7.68	7.73	8.20	8.69
	8H	13.62	14.04	14.14	14.53	15.10	7.38	7.80	7.90	8.29	8.86