

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060527

Luminaire Tested: S124RDRP-S575D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060527  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D940-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

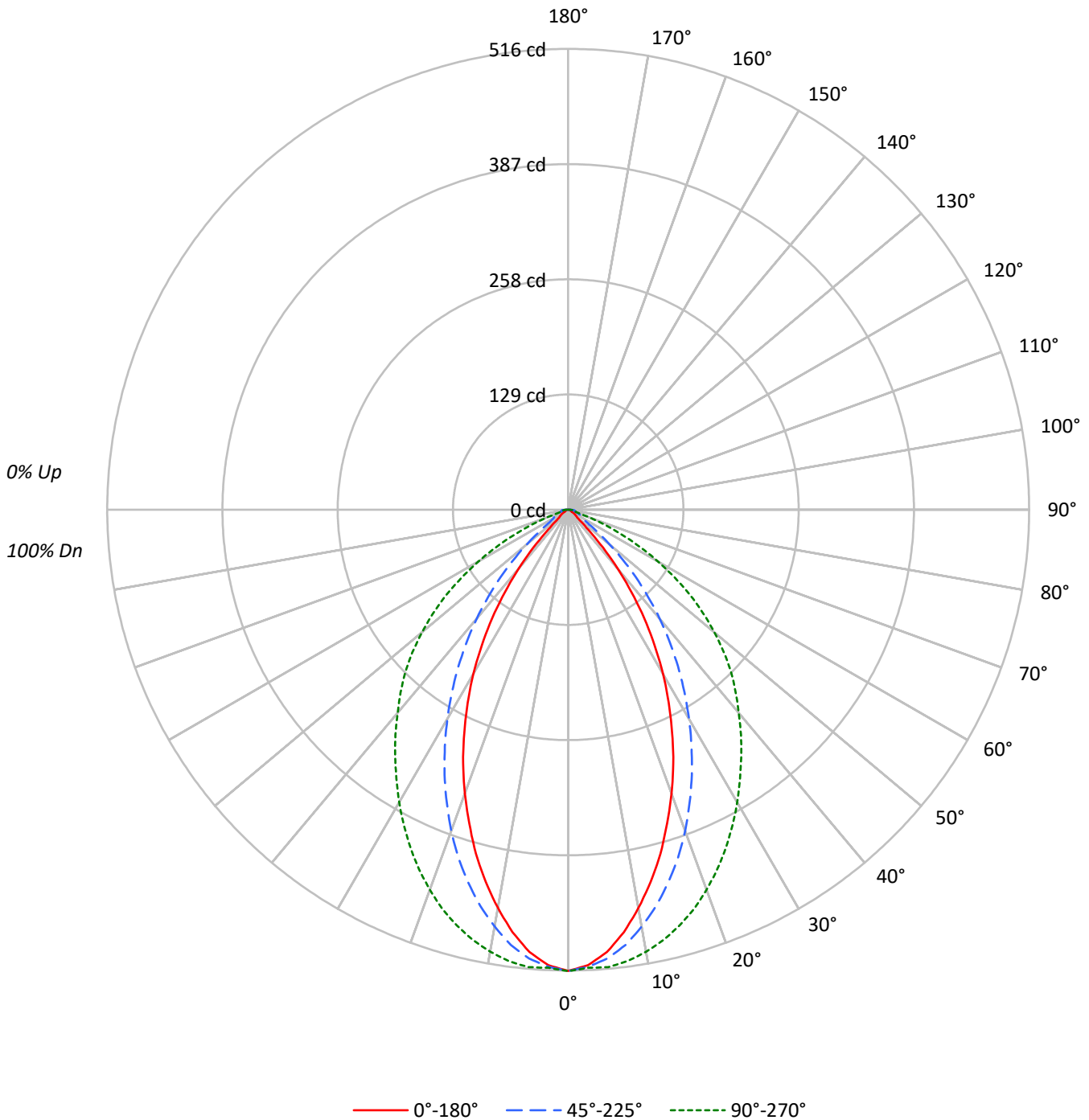
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 651.0 lumens  
Efficiency: N/A  
Efficacy: 33.2 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): 19.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

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

	0°	45°	90°
0°	4448	4448	4448
5°	4297	4360	4444
10°	3959	4145	4394
15°	3556	3853	4296
20°	3100	3505	4149
25°	2615	3110	3969
30°	2110	2689	3762
35°	1561	2250	3550
40°	968	1792	3339
45°	384	1307	3144
50°	170	820	2859
55°	137	428	2503
60°	95	324	1994
65°	61	322	1371
70°	60	290	642
75°	80	283	283
80°	119	332	332
85°	237	662	474

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3144 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.4	7.3
10°-20°	122.3	18.8
20°-30°	154.3	23.7
30°-40°	141.6	21.8
40°-50°	96.4	14.8
50°-60°	52.5	8.1
60°-70°	22.7	3.5
70°-80°	8.3	1.3
80°-90°	5.4	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°	324.0	49.8
0°-40°	465.6	71.5
0°-60°	614.6	94.4
0°-90°	651.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	651.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	497	504	504	510	514	46
15°	399	413	432	463	482	111
25°	275	295	327	380	418	126
35°	148	170	214	282	338	92
45°	32	53	107	190	258	29
55°	9	10	28	105	167	8
65°	3	4	16	33	67	3
75°	2	8	8	8	8	3
85°	2	6	7	7	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	516.5	516.5	516.5	516.5	516.5
2.5°	510.4	516.5	512.2	513.4	513.4
5°	497.1	503.7	504.4	509.8	514.1
7.5°	477.1	486.8	491.6	502.5	509.8
10°	452.8	464.3	474.0	492.8	502.5
12.5°	426.8	440.1	454.6	479.5	493.4
15°	398.9	412.8	432.2	463.1	481.9
17.5°	368.0	384.9	408.6	445.6	468.6
20°	338.3	355.2	382.5	424.3	452.8
22.5°	307.3	324.9	355.2	401.9	435.9
25°	275.2	294.6	327.3	379.5	417.7
27.5°	243.7	264.3	298.9	355.8	398.3
30°	212.2	232.8	270.4	331.6	378.3
32.5°	180.0	201.3	241.9	306.1	357.7
35°	148.5	170.3	214.0	281.9	337.7
37.5°	116.4	139.4	186.1	258.2	317.6
40°	86.1	109.1	159.4	234.6	297.0
42.5°	57.6	80.6	132.2	211.6	277.6
45°	31.5	52.7	107.3	190.3	258.2
47.5°	17.0	29.1	83.0	169.7	236.4
50°	12.7	15.8	61.2	147.9	213.4
52.5°	10.9	12.1	42.4	124.9	190.3
55°	9.1	9.7	28.5	104.9	166.7
57.5°	7.3	7.9	21.2	84.9	141.2
60°	5.5	6.7	18.8	65.5	115.8
62.5°	4.2	5.5	17.6	47.9	91.5
65°	3.0	4.2	15.8	32.7	67.3
67.5°	3.0	4.8	13.3	21.2	45.5
70°	2.4	6.7	11.5	13.9	25.5
72.5°	2.4	7.3	9.7	9.7	9.7
75°	2.4	7.9	8.5	8.5	8.5
77.5°	2.4	7.3	7.9	7.3	7.3
80°	2.4	6.7	6.7	6.7	6.7
82.5°	2.4	6.1	6.7	6.7	5.5
85°	2.4	5.5	6.7	6.7	4.8
87.5°	1.8	5.5	6.1	6.1	3.6
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	0.00	0.00	0.00	0.00	0.00	13.60	14.87	13.96	15.19	15.50
	3H	0.00	0.00	0.00	0.00	0.00	13.97	15.10	14.35	15.43	15.80
	4H	0.00	0.00	0.00	0.27	0.65	13.95	15.00	14.35	15.35	15.74
	6H	0.04	1.01	0.46	1.38	1.77	13.94	14.90	14.35	15.27	15.67
	8H	0.63	1.54	1.06	1.93	2.34	13.94	14.85	14.37	15.24	15.65
	12H	1.29	2.17	1.73	2.55	2.98	13.95	14.83	14.38	15.21	15.64
4H	2H	0.00	0.91	0.26	1.26	1.64	13.41	14.46	13.81	14.81	15.19
	3H	1.43	2.29	1.85	2.70	3.10	13.83	14.68	14.24	15.09	15.49
	4H	2.73	3.49	3.16	3.91	4.36	13.82	14.59	14.26	15.01	15.46
	6H	3.85	4.51	4.32	4.96	5.43	13.87	14.53	14.33	14.97	15.44
	8H	4.36	4.98	4.83	5.43	5.90	13.89	14.51	14.36	14.96	15.43
	12H	4.91	5.45	5.40	5.94	6.41	13.96	14.50	14.44	14.99	15.46
8H	4H	3.81	4.43	4.28	4.88	5.35	13.73	14.35	14.20	14.80	15.27
	6H	5.36	5.86	5.86	6.36	6.84	13.81	14.32	14.32	14.82	15.30
	8H	6.17	6.62	6.69	7.14	7.63	13.90	14.35	14.42	14.87	15.36
	12H	7.00	7.40	7.52	7.90	8.47	14.07	14.47	14.58	14.97	15.54
12H	4H	4.00	4.55	4.49	5.03	5.51	13.70	14.24	14.18	14.73	15.20
	6H	5.72	6.17	6.24	6.69	7.18	13.79	14.24	14.31	14.76	15.25
	8H	6.73	7.13	7.25	7.63	8.20	13.93	14.33	14.44	14.82	15.40