

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: P1060500

Luminaire Tested: S124RDRP-S575D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060500  
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-S575D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

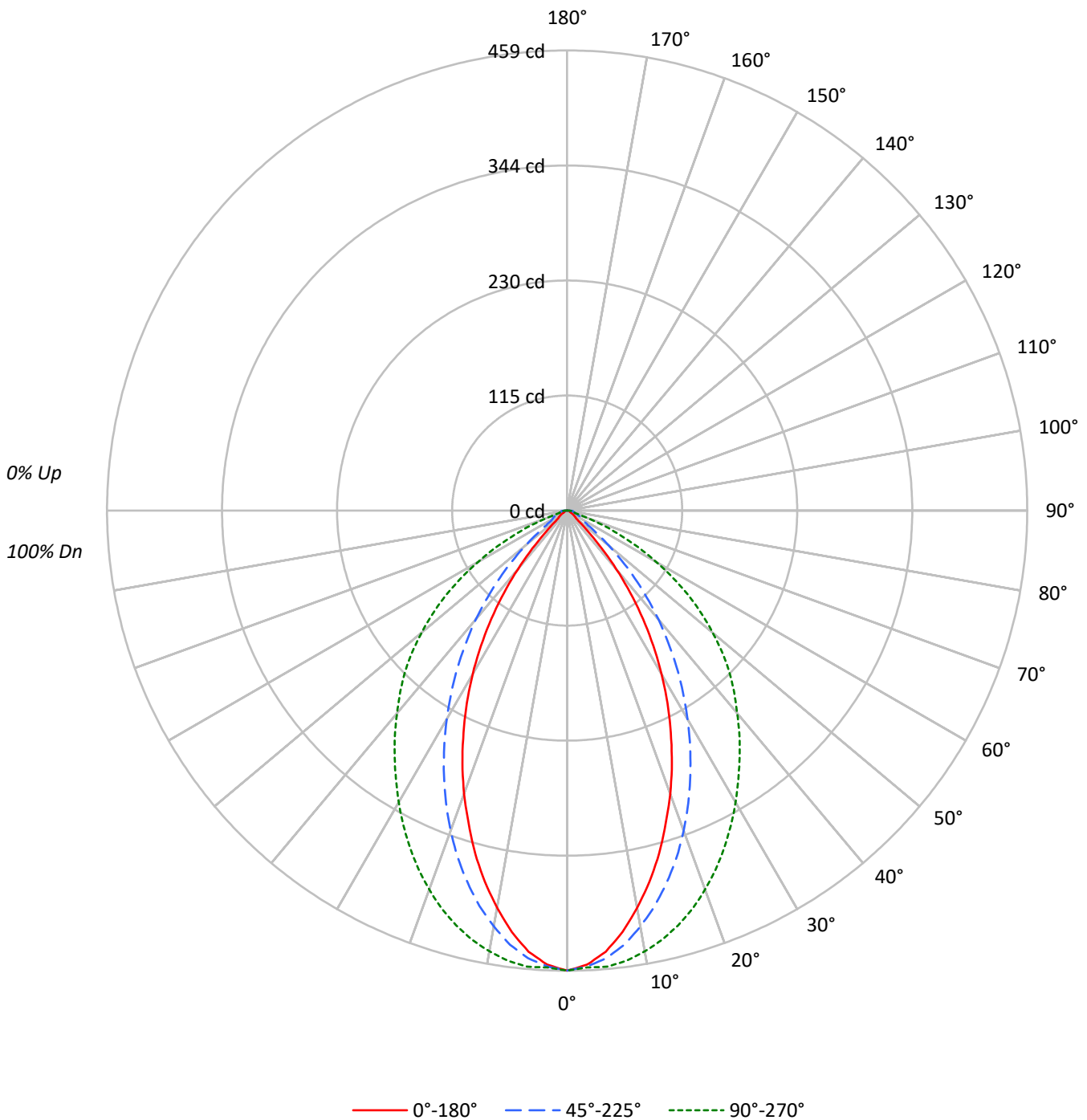
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 578.2 lumens  
Efficiency: N/A  
Efficacy: 29.5 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°	3951	3951	3951
5°	3817	3873	3948
10°	3518	3682	3903
15°	3159	3423	3816
20°	2754	3114	3687
25°	2323	2763	3525
30°	1874	2388	3341
35°	1387	1998	3154
40°	860	1592	2967
45°	341	1161	2794
50°	151	729	2540
55°	122	380	2223
60°	83	288	1772
65°	55	285	1218
70°	55	257	569
75°	73	250	250
80°	109	293	293
85°	217	583	425

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2794 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.1	7.3
10°-20°	108.6	18.8
20°-30°	137.1	23.7
30°-40°	125.8	21.8
40°-50°	85.7	14.8
50°-60°	46.7	8.1
60°-70°	20.2	3.5
70°-80°	7.4	1.3
80°-90°	4.7	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°	287.8	49.8
0°-40°	413.6	71.5
0°-60°	546.0	94.4
0°-90°	578.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	578.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	442	448	448	453	457	41
15°	354	367	384	411	428	99
25°	244	262	291	337	371	112
35°	132	151	190	250	300	81
45°	28	47	95	169	229	26
55°	8	9	25	93	148	7
65°	3	4	14	29	60	3
75°	2	7	8	8	8	2
85°	2	5	6	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	458.8	458.8	458.8	458.8	458.8
2.5°	453.4	458.8	455.1	456.1	456.1
5°	441.6	447.5	448.1	452.9	456.7
7.5°	423.8	432.4	436.8	446.4	452.9
10°	402.3	412.5	421.1	437.8	446.4
12.5°	379.1	391.0	403.9	426.0	438.4
15°	354.4	366.7	384.0	411.4	428.1
17.5°	326.9	342.0	363.0	395.8	416.3
20°	300.5	315.6	339.8	377.0	402.3
22.5°	273.0	288.7	315.6	357.0	387.2
25°	244.5	261.7	290.8	337.1	371.0
27.5°	216.5	234.8	265.5	316.1	353.8
30°	188.5	206.8	240.2	294.6	336.0
32.5°	159.9	178.8	214.9	272.0	317.7
35°	131.9	151.3	190.1	250.4	300.0
37.5°	103.4	123.9	165.3	229.4	282.2
40°	76.5	96.9	141.6	208.4	263.9
42.5°	51.2	71.6	117.4	187.9	246.6
45°	28.0	46.9	95.3	169.1	229.4
47.5°	15.1	25.8	73.8	150.8	210.0
50°	11.3	14.0	54.4	131.4	189.6
52.5°	9.7	10.8	37.7	110.9	169.1
55°	8.1	8.6	25.3	93.2	148.1
57.5°	6.5	7.0	18.8	75.4	125.5
60°	4.8	5.9	16.7	58.2	102.9
62.5°	3.8	4.8	15.6	42.5	81.3
65°	2.7	3.8	14.0	29.1	59.8
67.5°	2.7	4.3	11.8	18.8	40.4
70°	2.2	5.9	10.2	12.4	22.6
72.5°	2.2	6.5	8.6	8.6	8.6
75°	2.2	7.0	7.5	7.5	7.5
77.5°	2.2	6.5	7.0	6.5	6.5
80°	2.2	5.9	5.9	5.9	5.9
82.5°	2.2	5.4	5.9	5.9	4.8
85°	2.2	4.8	5.9	5.9	4.3
87.5°	1.6	4.8	5.4	5.4	3.2
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	13.18	14.46	13.55	14.77	15.09
	3H	0.00	0.00	0.00	0.00	0.00	13.56	14.69	13.94	15.02	15.39
	4H	0.00	0.00	0.00	0.00	0.27	13.54	14.59	13.94	14.94	15.32
	6H	0.00	0.65	0.10	1.02	1.41	13.52	14.49	13.94	14.86	15.26
	8H	0.28	1.19	0.71	1.59	1.99	13.52	14.44	13.96	14.83	15.24
	12H	0.96	1.83	1.39	2.22	2.65	13.54	14.41	13.97	14.79	15.22
4H	2H	0.00	0.48	0.00	0.83	1.21	12.99	14.05	13.40	14.40	14.78
	3H	1.01	1.87	1.42	2.27	2.68	13.41	14.27	13.83	14.68	15.08
	4H	2.31	3.08	2.75	3.50	3.94	13.41	14.18	13.85	14.60	15.04
	6H	3.45	4.11	3.91	4.56	5.03	13.45	14.11	13.92	14.56	15.03
	8H	3.97	4.58	4.44	5.03	5.50	13.48	14.10	13.95	14.54	15.01
	12H	4.52	5.07	5.01	5.55	6.03	13.54	14.09	14.03	14.57	15.05
8H	4H	3.39	4.01	3.86	4.46	4.93	13.32	13.94	13.79	14.39	14.86
	6H	4.94	5.44	5.44	5.94	6.42	13.40	13.90	13.90	14.40	14.88
	8H	5.75	6.21	6.27	6.72	7.21	13.48	13.94	14.00	14.45	14.94
	12H	6.58	6.99	7.10	7.48	8.05	13.65	14.05	14.17	14.55	15.12
12H	4H	3.58	4.13	4.07	4.61	5.08	13.28	13.83	13.77	14.31	14.79
	6H	5.29	5.75	5.81	6.26	6.75	13.37	13.83	13.90	14.34	14.84
	8H	6.31	6.71	6.82	7.20	7.78	13.51	13.91	14.02	14.40	14.98