

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: P1060941

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060941  
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: S124RDR-H575D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

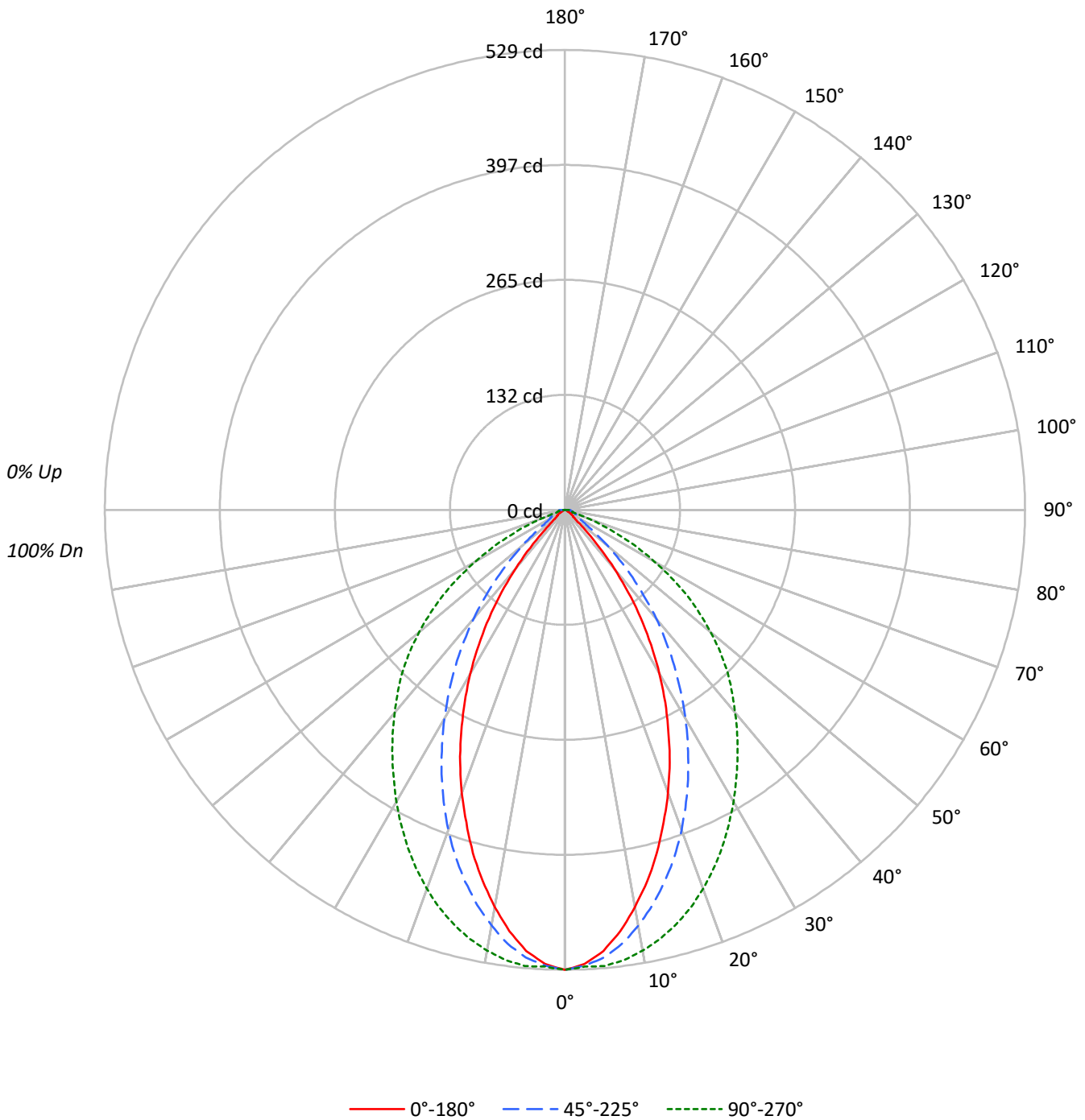
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 666.8 lumens  
Efficiency: N/A  
Efficacy: 38.3 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): 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									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	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															
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90													90															
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81													81															
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72													72															
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65													65															
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59													59															
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54													54															
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49													49															
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45													45															
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42													42															
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39													39															

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

	0°	45°	90°
0°	4556	4556	4556
5°	4402	4466	4552
10°	4056	4246	4501
15°	3643	3948	4401
20°	3175	3590	4251
25°	2678	3186	4066
30°	2161	2754	3853
35°	1599	2304	3636
40°	991	1836	3421
45°	393	1338	3221
50°	174	840	2928
55°	140	438	2564
60°	96	332	2043
65°	63	328	1404
70°	63	297	657
75°	83	289	289
80°	124	337	337
85°	247	672	494

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3221 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.5	7.3
10°-20°	125.3	18.8
20°-30°	158.1	23.7
30°-40°	145.1	21.8
40°-50°	98.8	14.8
50°-60°	53.8	8.1
60°-70°	23.3	3.5
70°-80°	8.5	1.3
80°-90°	5.5	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°	331.9	49.8
0°-40°	476.9	71.5
0°-60°	629.5	94.4
0°-90°	666.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	666.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	509	516	517	522	527	47
15°	409	423	443	474	494	114
25°	282	302	335	389	428	129
35°	152	174	219	289	346	94
45°	32	54	110	195	264	30
55°	9	10	29	107	171	8
65°	3	4	16	34	69	4
75°	2	8	9	9	9	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°	529.1	529.1	529.1	529.1	529.1
2.5°	522.9	529.1	524.7	526.0	526.0
5°	509.2	516.0	516.7	522.2	526.6
7.5°	488.7	498.6	503.6	514.8	522.2
10°	463.9	475.7	485.6	504.9	514.8
12.5°	437.2	450.8	465.7	491.2	505.5
15°	408.6	422.9	442.8	474.4	493.7
17.5°	376.9	394.3	418.5	456.4	480.0
20°	346.5	363.9	391.8	434.7	463.9
22.5°	314.8	332.8	363.9	411.7	446.5
25°	281.9	301.8	335.3	388.7	427.9
27.5°	249.6	270.7	306.1	364.5	408.0
30°	217.3	238.5	277.0	339.7	387.5
32.5°	184.4	206.2	247.8	313.6	366.4
35°	152.1	174.5	219.2	288.8	345.9
37.5°	119.2	142.8	190.6	264.5	325.4
40°	88.2	111.8	163.3	240.3	304.3
42.5°	59.0	82.6	135.4	216.7	284.4
45°	32.3	54.0	109.9	195.0	264.5
47.5°	17.4	29.8	85.1	173.9	242.2
50°	13.0	16.1	62.7	151.5	218.6
52.5°	11.2	12.4	43.5	127.9	195.0
55°	9.3	9.9	29.2	107.4	170.8
57.5°	7.5	8.1	21.7	86.9	144.7
60°	5.6	6.8	19.3	67.1	118.6
62.5°	4.3	5.6	18.0	49.1	93.8
65°	3.1	4.3	16.1	33.5	68.9
67.5°	3.1	5.0	13.7	21.7	46.6
70°	2.5	6.8	11.8	14.3	26.1
72.5°	2.5	7.5	9.9	9.9	9.9
75°	2.5	8.1	8.7	8.7	8.7
77.5°	2.5	7.5	8.1	7.5	7.5
80°	2.5	6.8	6.8	6.8	6.8
82.5°	2.5	6.2	6.8	6.8	5.6
85°	2.5	5.6	6.8	6.8	5.0
87.5°	1.9	5.6	6.2	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	0.00	0.00	0.00	0.00	0.00	13.68	14.95	14.04	15.27	15.58
	3H	0.00	0.00	0.00	0.00	0.00	14.05	15.18	14.43	15.51	15.88
	4H	0.00	0.03	0.00	0.38	0.76	14.03	15.08	14.43	15.43	15.82
	6H	0.16	1.13	0.58	1.50	1.89	14.02	14.98	14.43	15.36	15.75
	8H	0.75	1.66	1.18	2.06	2.46	14.02	14.93	14.45	15.32	15.73
	12H	1.42	2.30	1.86	2.68	3.11	14.03	14.91	14.47	15.29	15.72
4H	2H	0.00	0.97	0.32	1.32	1.71	13.49	14.54	13.89	14.89	15.27
	3H	1.50	2.36	1.92	2.77	3.17	13.91	14.76	14.32	15.17	15.57
	4H	2.81	3.57	3.24	3.99	4.44	13.90	14.67	14.34	15.09	15.54
	6H	3.94	4.60	4.40	5.05	5.51	13.95	14.61	14.41	15.05	15.52
	8H	4.45	5.07	4.92	5.51	5.98	13.97	14.59	14.44	15.04	15.51
	12H	5.00	5.55	5.49	6.03	6.50	14.04	14.58	14.52	15.07	15.54
8H	4H	3.89	4.51	4.36	4.96	5.43	13.81	14.43	14.28	14.88	15.35
	6H	5.43	5.94	5.94	6.43	6.92	13.89	14.40	14.40	14.90	15.38
	8H	6.24	6.69	6.76	7.21	7.70	13.98	14.43	14.50	14.95	15.44
	12H	7.07	7.48	7.59	7.97	8.54	14.15	14.55	14.66	15.04	15.62
12H	4H	4.08	4.63	4.57	5.11	5.58	13.78	14.32	14.27	14.81	15.28
	6H	5.78	6.24	6.31	6.76	7.25	13.87	14.32	14.39	14.84	15.33
	8H	6.79	7.20	7.31	7.69	8.26	14.00	14.40	14.52	14.90	15.47