

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: P1060836

Luminaire Tested: S124RDR-H350D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060836  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H350D930-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

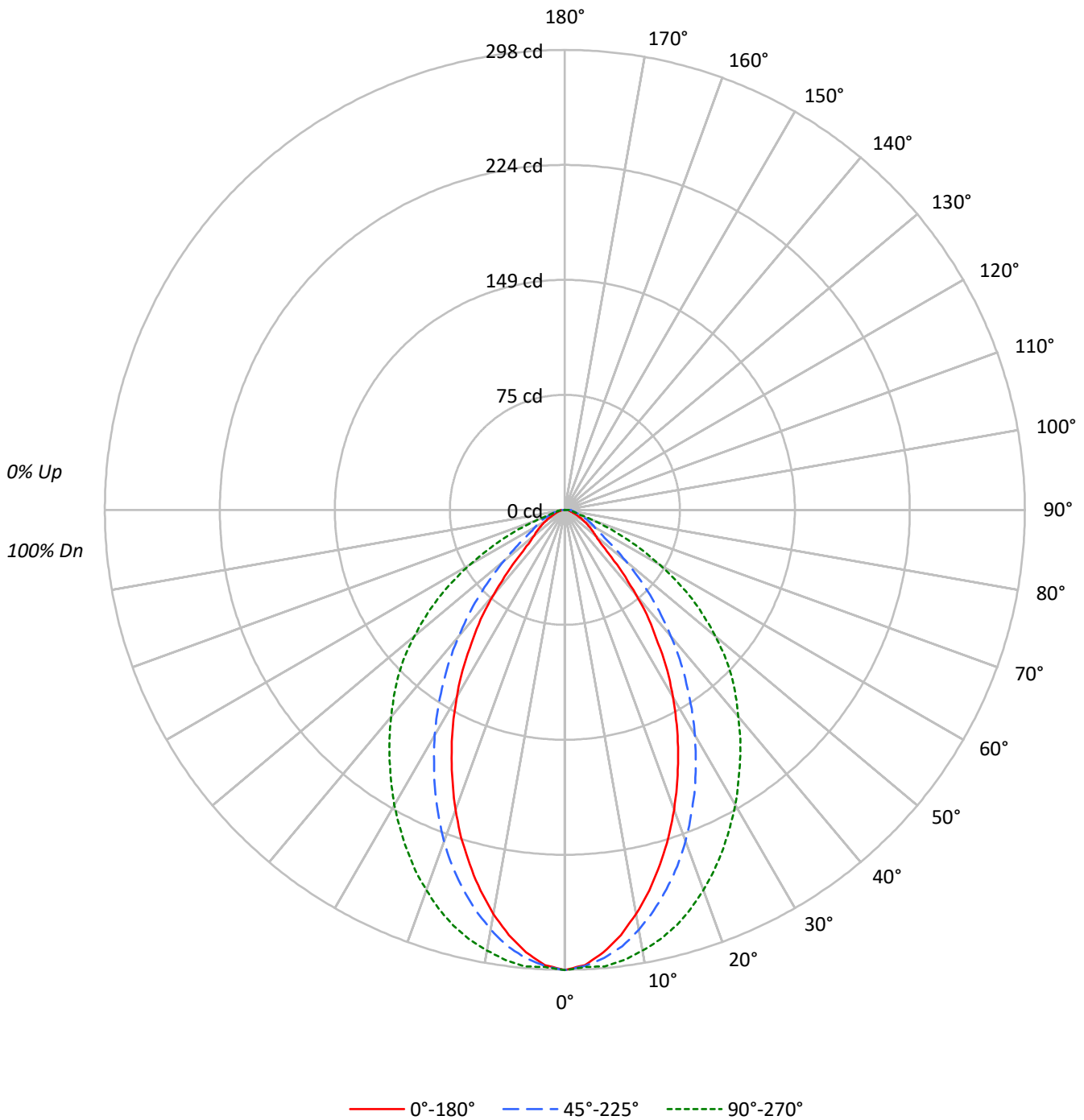
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 422.1 lumens  
Efficiency: N/A  
Efficacy: 36.1 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.7  
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	
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	72	68	65	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	2568	2568	2568
5°	2489	2520	2566
10°	2325	2415	2535
15°	2121	2269	2486
20°	1896	2095	2403
25°	1649	1893	2304
30°	1391	1676	2196
35°	1107	1443	2080
40°	805	1202	1966
45°	487	950	1862
50°	348	687	1705
55°	296	465	1506
60°	241	379	1216
65°	189	340	876
70°	159	285	461
75°	143	266	233
80°	149	263	233
85°	198	395	267

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 1862 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.5	6.5
10°-20°	71.9	17.0
20°-30°	93.3	22.1
30°-40°	89.8	21.3
40°-50°	66.8	15.8
50°-60°	41.1	9.7
60°-70°	20.2	4.8
70°-80°	7.9	1.9
80°-90°	3.6	0.9
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°	192.7	45.7
0°-40°	282.5	66.9
0°-60°	390.4	92.5
0°-90°	422.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	298	298	298	298	298	
5°	288	292	292	294	297	27
15°	238	246	254	270	279	66
25°	174	183	199	224	242	79
35°	105	115	137	172	198	66
45°	40	50	78	120	153	33
55°	20	20	31	71	100	18
65°	9	10	17	27	43	10
75°	4	8	8	7	7	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	298.2	298.2	298.2	298.2	298.2
2.5°	295.2	298.5	295.9	296.2	296.5
5°	287.9	292.2	291.5	294.2	296.9
7.5°	277.9	282.9	285.2	290.5	294.2
10°	265.9	271.5	276.2	284.9	289.9
12.5°	252.5	259.2	265.9	277.5	285.2
15°	237.9	245.5	254.5	269.9	278.9
17.5°	222.9	230.6	242.2	259.9	271.2
20°	206.9	215.2	228.6	248.2	262.2
22.5°	190.2	199.2	213.9	236.2	252.9
25°	173.6	182.9	199.2	224.2	242.5
27.5°	156.9	165.9	183.6	211.6	231.6
30°	139.9	149.3	168.6	197.9	220.9
32.5°	123.6	132.3	152.9	184.9	209.2
35°	105.3	115.3	137.3	171.6	197.9
37.5°	89.6	98.6	122.3	158.3	186.6
40°	71.6	81.6	106.9	145.3	174.9
42.5°	55.0	65.0	92.3	132.3	163.9
45°	40.0	49.6	78.0	120.3	152.9
47.5°	30.3	36.0	64.0	108.6	140.6
50°	26.0	27.7	51.3	96.0	127.3
52.5°	23.0	23.7	40.0	83.3	113.9
55°	19.7	20.3	31.0	70.6	100.3
57.5°	16.7	17.0	25.0	58.6	85.6
60°	14.0	14.3	22.0	47.0	70.6
62.5°	11.7	12.0	19.7	36.3	56.3
65°	9.3	10.0	16.7	26.7	43.0
67.5°	7.7	9.0	14.0	18.7	30.0
70°	6.3	8.7	11.3	13.0	18.3
72.5°	5.3	8.0	9.7	9.3	9.0
75°	4.3	7.7	8.0	7.3	7.0
77.5°	3.7	6.7	6.7	6.0	5.7
80°	3.0	5.3	5.3	5.3	4.7
82.5°	2.7	4.3	4.7	4.7	3.7
85°	2.0	3.7	4.0	4.0	2.7
87.5°	1.3	3.3	3.7	3.3	2.0
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	3.07	4.41	3.43	4.72	5.04	12.23	13.57	12.59	13.88	14.20
	3H	4.18	5.37	4.56	5.70	6.06	12.73	13.92	13.11	14.25	14.62
	4H	4.69	5.80	5.10	6.15	6.54	12.75	13.86	13.16	14.21	14.60
	6H	5.13	6.15	5.55	6.52	6.92	12.77	13.79	13.18	14.16	14.55
	8H	5.32	6.29	5.75	6.68	7.09	12.77	13.74	13.20	14.13	14.53
	12H	5.51	6.43	5.94	6.81	7.24	12.77	13.70	13.20	14.08	14.51
4H	2H	4.21	5.32	4.62	5.68	6.06	12.12	13.23	12.52	13.58	13.96
	3H	5.56	6.47	5.97	6.87	7.27	12.71	13.62	13.12	14.02	14.42
	4H	6.29	7.10	6.73	7.52	7.97	12.77	13.58	13.20	14.00	14.44
	6H	6.90	7.60	7.36	8.05	8.52	12.84	13.55	13.31	13.99	14.46
	8H	7.14	7.80	7.61	8.25	8.72	12.87	13.53	13.34	13.98	14.45
	12H	7.38	7.96	7.87	8.45	8.92	12.92	13.50	13.40	13.98	14.45
8H	4H	6.76	7.42	7.23	7.86	8.33	12.73	13.38	13.19	13.83	14.30
	6H	7.61	8.14	8.11	8.64	9.12	12.85	13.39	13.35	13.89	14.37
	8H	8.01	8.49	8.53	9.01	9.50	12.94	13.42	13.46	13.94	14.43
	12H	8.44	8.86	8.95	9.36	9.93	13.06	13.49	13.57	13.98	14.55
12H	4H	6.81	7.39	7.30	7.88	8.35	12.70	13.28	13.18	13.76	14.23
	6H	7.74	8.22	8.26	8.74	9.23	12.83	13.32	13.36	13.83	14.32
	8H	8.26	8.69	8.77	9.18	9.75	12.97	13.40	13.48	13.89	14.46