

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: P1060263

Luminaire Tested: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060263  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1020D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

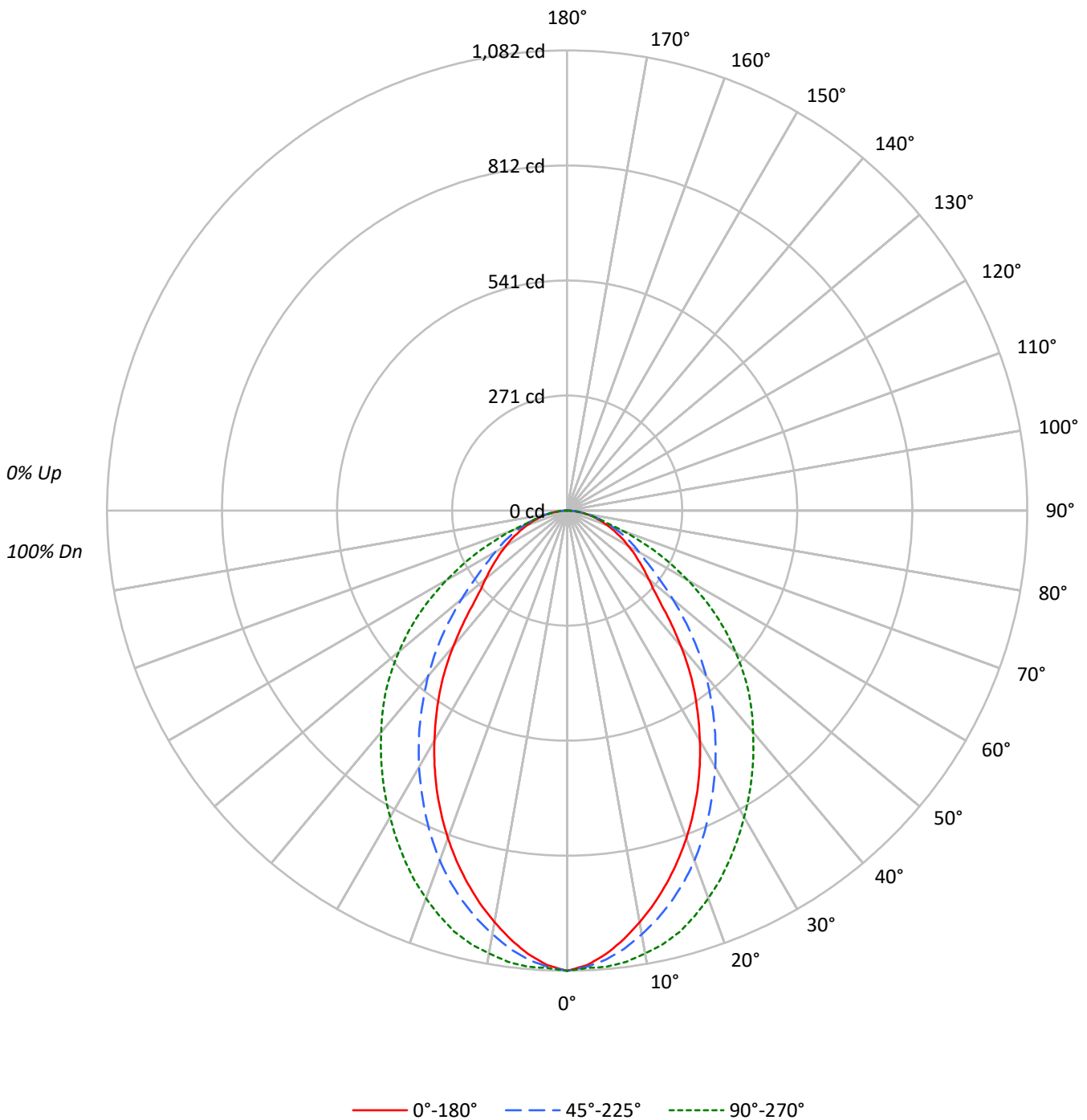
Lumens per Lamp: N/A  
Luminaire Lumens: 1985.9 lumens  
Efficiency: N/A  
Efficacy: 56.7 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75													75															
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65													65															
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57													57															
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50													50															
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45													45															
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40													40															
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37													37															
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33													33															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31													31															

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

	0°	45°	90°
0°	9319	9319	9319
5°	9049	9157	9305
10°	8592	8844	9245
15°	8077	8470	9136
20°	7512	8022	8891
25°	6888	7489	8600
30°	6209	6924	8276
35°	5497	6333	7964
40°	4673	5717	7644
45°	3825	5050	7348
50°	3349	4336	6915
55°	3078	3738	6399
60°	2854	3365	5640
65°	2673	3162	4723
70°	2508	2893	3545
75°	2359	2645	2582
80°	2187	2420	2187
85°	1986	2361	1897

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7348 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.0	5.0
10°-20°	269.1	13.6
20°-30°	367.8	18.5
30°-40°	386.6	19.5
40°-50°	335.5	16.9
50°-60°	253.1	12.7
60°-70°	164.0	8.3
70°-80°	84.2	4.2
80°-90°	25.5	1.3
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°	737.0	37.1
0°-40°	1123.6	56.6
0°-60°	1712.1	86.2
0°-90°	1985.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1985.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1047	1061	1059	1068	1076	98
15°	906	928	950	993	1025	254
25°	725	751	788	849	905	332
35°	523	552	602	683	758	325
45°	314	344	415	518	603	247
55°	205	211	249	353	426	184
65°	131	134	155	188	232	131
75°	71	80	80	80	78	75
85°	20	25	24	23	19	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1082.2	1082.2	1082.2	1082.2	1082.2
2.5°	1069.8	1083.2	1073.6	1075.5	1076.5
5°	1046.8	1061.2	1059.3	1067.9	1076.5
7.5°	1017.1	1034.4	1038.2	1055.4	1069.8
10°	982.6	1001.8	1011.4	1039.1	1057.3
12.5°	946.2	965.4	982.6	1018.1	1043.9
15°	906.0	928.0	950.1	993.2	1024.8
17.5°	863.9	886.9	914.6	961.6	998.9
20°	819.8	842.8	875.4	926.1	970.2
22.5°	772.9	798.8	833.2	887.8	939.5
25°	725.0	750.9	788.2	848.6	905.1
27.5°	675.2	702.0	742.2	809.3	869.6
30°	624.4	653.2	696.3	767.1	832.3
32.5°	572.7	603.4	649.3	725.0	795.9
35°	522.9	551.7	602.4	682.9	757.6
37.5°	471.2	499.9	554.5	641.7	719.3
40°	415.7	447.3	508.6	598.6	680.0
42.5°	363.9	395.5	461.6	557.4	642.6
45°	314.1	343.8	414.7	518.1	603.4
47.5°	275.8	296.9	367.8	479.8	561.2
50°	250.0	259.5	323.7	437.7	516.2
52.5°	227.0	234.6	283.5	395.5	472.2
55°	205.0	210.7	249.0	353.4	426.2
57.5°	185.8	188.7	218.4	311.3	376.4
60°	165.7	169.5	195.4	268.2	327.5
62.5°	149.4	151.3	175.3	227.0	278.7
65°	131.2	134.1	155.2	187.7	231.8
67.5°	114.9	119.7	134.1	153.2	182.9
70°	99.6	106.3	114.9	124.5	140.8
72.5°	85.2	92.9	97.7	101.5	98.6
75°	70.9	79.5	79.5	80.4	77.6
77.5°	57.5	65.1	64.2	63.2	59.4
80°	44.1	50.8	48.8	47.9	44.1
82.5°	32.6	37.4	35.4	34.5	29.7
85°	20.1	24.9	23.9	23.0	19.2
87.5°	9.6	14.4	13.4	12.5	8.6
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	14.26	15.75	14.62	16.06	16.37	18.00	19.48	18.36	19.80	20.11
	3H	15.93	17.26	16.30	17.59	17.95	19.12	20.45	19.50	20.78	21.15
	4H	16.59	17.84	16.99	18.19	18.57	19.42	20.67	19.82	21.02	21.40
	6H	17.10	18.25	17.51	18.62	19.01	19.62	20.77	20.03	21.14	21.53
	8H	17.28	18.37	17.70	18.76	19.16	19.67	20.77	20.10	21.16	21.56
	12H	17.40	18.45	17.83	18.83	19.26	19.71	20.76	20.14	21.14	21.57
4H	2H	15.05	16.30	15.45	16.65	17.03	18.16	19.41	18.56	19.76	20.14
	3H	16.92	17.96	17.33	18.36	18.76	19.49	20.53	19.90	20.93	21.33
	4H	17.73	18.66	18.16	19.07	19.51	19.91	20.84	20.34	21.26	21.70
	6H	18.37	19.18	18.83	19.62	20.08	20.23	21.04	20.69	21.48	21.94
	8H	18.59	19.35	19.06	19.80	20.26	20.32	21.08	20.79	21.53	21.99
	12H	18.76	19.43	19.24	19.91	20.38	20.40	21.07	20.88	21.55	22.02
8H	4H	18.07	18.83	18.54	19.28	19.74	20.04	20.80	20.51	21.24	21.71
	6H	18.86	19.49	19.36	19.98	20.46	20.46	21.09	20.96	21.58	22.06
	8H	19.18	19.74	19.70	20.26	20.74	20.62	21.18	21.13	21.69	22.18
	12H	19.45	19.94	19.96	20.44	21.00	20.76	21.25	21.27	21.75	22.31
12H	4H	18.10	18.78	18.59	19.26	19.73	20.05	20.72	20.53	21.20	21.67
	6H	18.93	19.49	19.44	20.00	20.49	20.48	21.04	21.00	21.56	22.04
	8H	19.31	19.81	19.82	20.30	20.87	20.69	21.19	21.20	21.68	22.25