

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: P1060299

Luminaire Tested: S124RDRP-S1020D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060299  
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-S1020D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

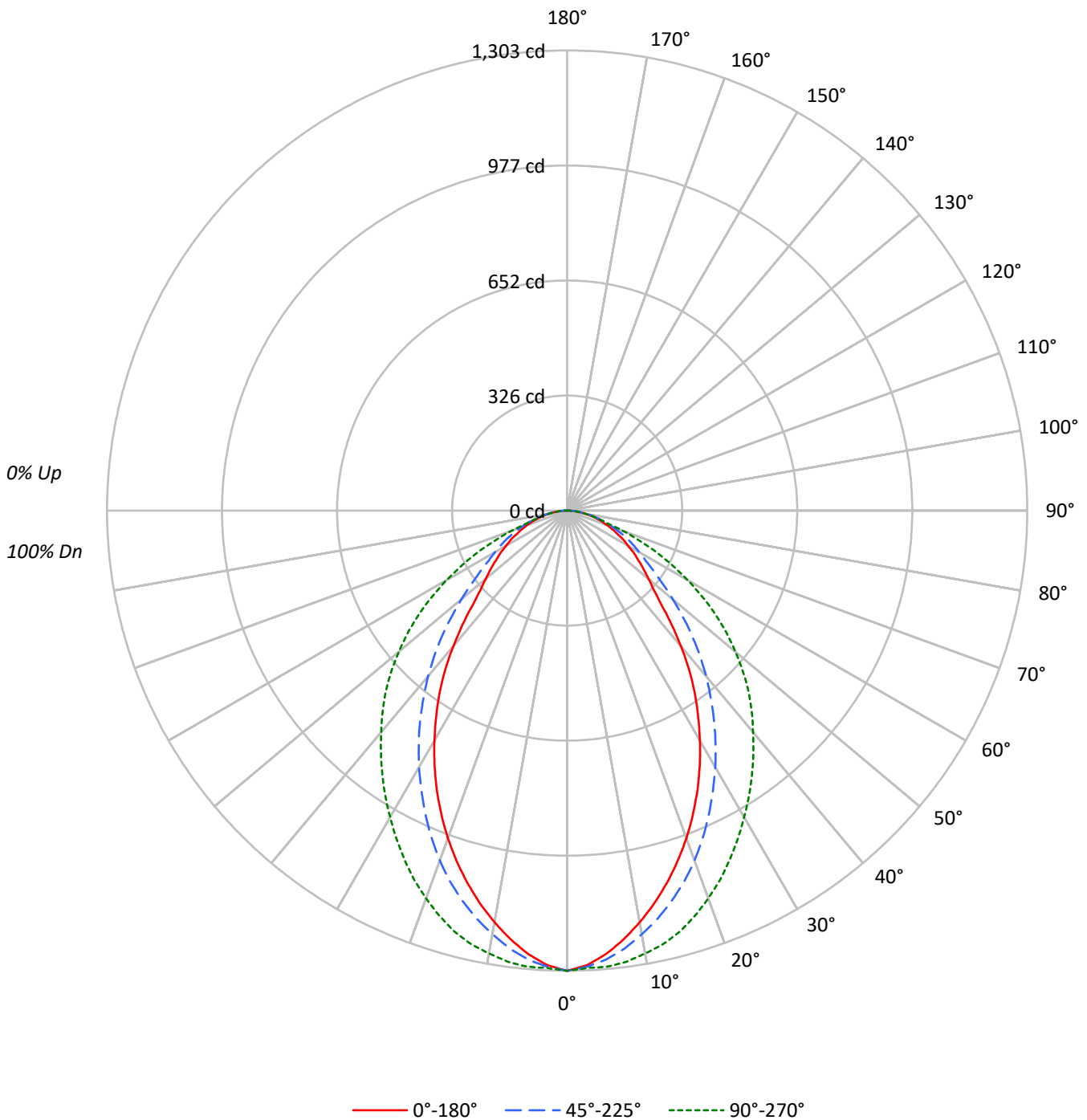
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2391.5 lumens  
Efficiency: N/A  
Efficacy: 68.3 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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																												
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65																												
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57																												
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50																												
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																												
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																												
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31																												

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

	0°	45°	90°
0°	11223	11223	11223
5°	10897	11026	11206
10°	10348	10650	11134
15°	9727	10200	11002
20°	9047	9660	10707
25°	8296	9019	10356
30°	7477	8337	9966
35°	6620	7627	9590
40°	5627	6884	9205
45°	4607	6082	8849
50°	4032	5222	8329
55°	3705	4502	7706
60°	3436	4052	6794
65°	3219	3806	5687
70°	3021	3485	4268
75°	2838	3184	3107
80°	2633	2916	2633
85°	2391	2845	2282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8849 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.4	5.0
10°-20°	324.1	13.6
20°-30°	443.0	18.5
30°-40°	465.6	19.5
40°-50°	404.0	16.9
50°-60°	304.7	12.7
60°-70°	197.5	8.3
70°-80°	101.4	4.2
80°-90°	30.7	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°	887.5	37.1
0°-40°	1353.1	56.6
0°-60°	2061.8	86.2
0°-90°	2391.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1261	1278	1276	1286	1296	118
15°	1091	1118	1144	1196	1234	306
25°	873	904	949	1022	1090	400
35°	630	664	726	822	912	392
45°	378	414	499	624	727	298
55°	247	254	300	426	513	222
65°	158	162	187	226	279	157
75°	85	96	96	97	93	91
85°	24	30	29	28	23	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1303.3	1303.3	1303.3	1303.3	1303.3
2.5°	1288.3	1304.5	1292.9	1295.2	1296.4
5°	1260.6	1277.9	1275.6	1286.0	1296.4
7.5°	1224.9	1245.6	1250.3	1271.0	1288.3
10°	1183.4	1206.4	1218.0	1251.4	1273.3
12.5°	1139.5	1162.6	1183.4	1226.0	1257.2
15°	1091.1	1117.6	1144.1	1196.0	1234.1
17.5°	1040.3	1068.0	1101.5	1158.0	1203.0
20°	987.3	1015.0	1054.2	1115.3	1168.4
22.5°	930.8	961.9	1003.4	1069.2	1131.5
25°	873.1	904.2	949.2	1021.9	1089.9
27.5°	813.1	845.4	893.9	974.6	1047.3
30°	752.0	786.6	838.5	923.9	1002.3
32.5°	689.7	726.6	782.0	873.1	958.5
35°	629.7	664.3	725.5	822.4	912.3
37.5°	567.5	602.1	667.8	772.8	866.2
40°	500.6	538.6	612.4	720.9	818.9
42.5°	438.3	476.3	555.9	671.3	773.9
45°	378.3	414.1	499.4	624.0	726.6
47.5°	332.2	357.5	442.9	577.8	675.9
50°	301.0	312.6	389.8	527.1	621.7
52.5°	273.3	282.6	341.4	476.3	568.6
55°	246.8	253.7	299.9	425.6	513.3
57.5°	223.8	227.2	263.0	374.8	453.3
60°	199.5	204.1	235.3	322.9	394.5
62.5°	179.9	182.2	211.1	273.3	335.6
65°	158.0	161.5	186.8	226.1	279.1
67.5°	138.4	144.2	161.5	184.5	220.3
70°	120.0	128.0	138.4	149.9	169.5
72.5°	102.7	111.9	117.6	122.3	118.8
75°	85.3	95.7	95.7	96.9	93.4
77.5°	69.2	78.4	77.3	76.1	71.5
80°	53.1	61.1	58.8	57.7	53.1
82.5°	39.2	45.0	42.7	41.5	35.8
85°	24.2	30.0	28.8	27.7	23.1
87.5°	11.5	17.3	16.1	15.0	10.4
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	14.90	16.39	15.27	16.70	17.02	18.64	20.13	19.01	20.44	20.76
	3H	16.57	17.90	16.95	18.23	18.59	19.77	21.10	20.15	21.43	21.79
	4H	17.24	18.49	17.64	18.84	19.21	20.06	21.31	20.46	21.66	22.04
	6H	17.75	18.90	18.16	19.27	19.66	20.26	21.42	20.68	21.78	22.18
	8H	17.92	19.02	18.35	19.41	19.81	20.32	21.42	20.74	21.81	22.21
	12H	18.04	19.09	18.47	19.47	19.90	20.35	21.40	20.78	21.78	22.21
4H	2H	15.70	16.94	16.10	17.29	17.67	18.81	20.06	19.21	20.40	20.78
	3H	17.57	18.60	17.98	19.00	19.40	20.14	21.17	20.55	21.57	21.97
	4H	18.37	19.30	18.80	19.72	20.16	20.55	21.49	20.99	21.90	22.34
	6H	19.01	19.82	19.47	20.27	20.73	20.88	21.69	21.33	22.13	22.59
	8H	19.24	19.99	19.70	20.44	20.91	20.97	21.73	21.43	22.17	22.64
	12H	19.40	20.08	19.89	20.56	21.03	21.04	21.72	21.53	22.20	22.67
8H	4H	18.72	19.48	19.18	19.92	20.39	20.69	21.44	21.15	21.89	22.36
	6H	19.51	20.13	20.01	20.63	21.10	21.11	21.73	21.60	22.22	22.70
	8H	19.83	20.39	20.34	20.90	21.39	21.26	21.82	21.78	22.34	22.82
	12H	20.09	20.59	20.60	21.08	21.65	21.40	21.90	21.91	22.39	22.96
12H	4H	18.75	19.43	19.23	19.90	20.38	20.69	21.37	21.17	21.85	22.32
	6H	19.57	20.13	20.09	20.64	21.13	21.13	21.69	21.64	22.20	22.69
	8H	19.96	20.45	20.47	20.95	21.51	21.34	21.83	21.85	22.33	22.89