

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: P1060773

Luminaire Tested: S124RDRP-H1195D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060773  
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: S124RDRP-H1195D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

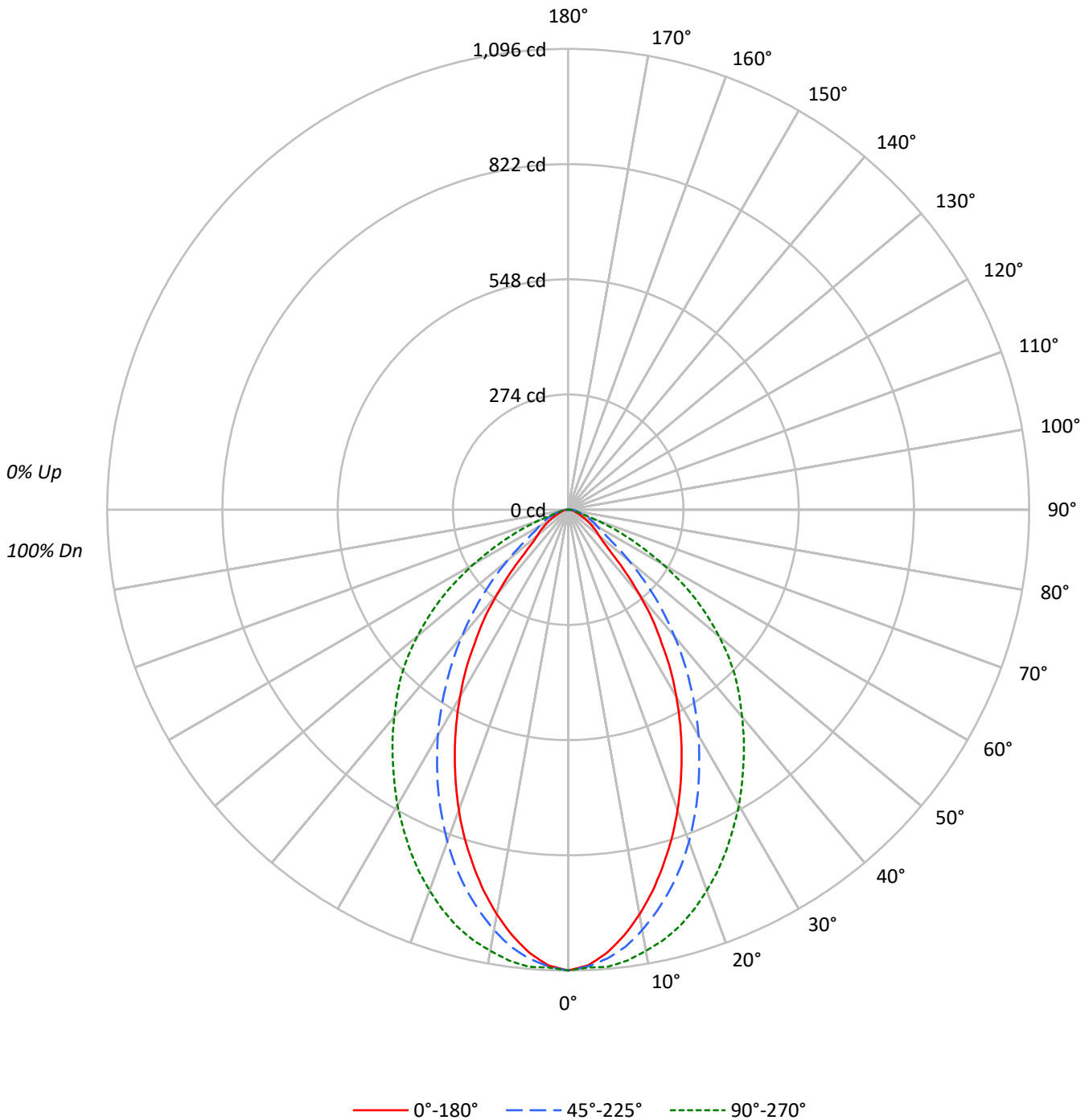
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1550.9 lumens  
Efficiency: N/A  
Efficacy: 42.5 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): 36.5  
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	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	77	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	73	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°	9436	9436	9436
5°	9144	9260	9430
10°	8543	8875	9314
15°	7793	8339	9136
20°	6967	7697	8830
25°	6061	6957	8469
30°	5113	6160	8072
35°	4067	5302	7646
40°	2959	4418	7226
45°	1789	3489	6844
50°	1279	2527	6266
55°	1084	1710	5532
60°	885	1392	4471
65°	699	1247	3217
70°	587	1047	1694
75°	529	978	855
80°	545	972	848
85°	721	1452	968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6844 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	6.5
10°-20°	264.4	17.0
20°-30°	342.9	22.1
30°-40°	330.0	21.3
40°-50°	245.5	15.8
50°-60°	151.0	9.7
60°-70°	74.2	4.8
70°-80°	28.9	1.9
80°-90°	13.2	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°	708.1	45.7
0°-40°	1038.1	66.9
0°-60°	1434.7	92.5
0°-90°	1550.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1550.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1096	1096	1096	1096	1096	
5°	1058	1074	1071	1081	1091	98
15°	874	902	935	992	1025	244
25°	638	672	732	824	891	292
35°	387	424	504	630	727	242
45°	147	182	286	442	562	122
55°	72	75	114	260	368	65
65°	34	37	61	98	158	35
75°	16	28	29	27	26	17
85°	7	14	15	15	10	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1095.8	1095.8	1095.8	1095.8	1095.8
2.5°	1084.8	1097.0	1087.2	1088.5	1089.7
5°	1057.8	1073.8	1071.3	1081.1	1090.9
7.5°	1021.1	1039.5	1048.1	1067.6	1081.1
10°	977.0	997.9	1015.0	1046.8	1065.2
12.5°	928.1	952.6	977.0	1019.9	1048.1
15°	874.2	902.4	935.4	991.7	1024.8
17.5°	819.1	847.3	890.1	955.0	996.6
20°	760.3	790.9	839.9	912.1	963.6
22.5°	699.1	732.2	786.0	868.1	929.3
25°	637.9	672.2	732.2	824.0	891.3
27.5°	576.7	609.7	674.6	777.5	850.9
30°	514.2	548.5	619.5	727.3	811.8
32.5°	454.2	486.1	562.0	679.5	768.9
35°	386.9	423.6	504.4	630.5	727.3
37.5°	329.4	362.4	449.3	581.6	685.6
40°	263.2	300.0	393.0	533.8	642.8
42.5°	202.0	238.8	339.1	486.1	602.4
45°	146.9	182.4	286.5	442.0	562.0
47.5°	111.4	132.2	235.1	399.1	516.7
50°	95.5	101.6	188.6	352.6	467.7
52.5°	84.5	86.9	146.9	306.1	418.7
55°	72.2	74.7	113.9	259.6	368.5
57.5°	61.2	62.4	91.8	215.5	314.7
60°	51.4	52.6	80.8	172.6	259.6
62.5°	42.9	44.1	72.2	133.5	206.9
65°	34.3	36.7	61.2	97.9	157.9
67.5°	28.2	33.1	51.4	68.6	110.2
70°	23.3	31.8	41.6	47.8	67.3
72.5°	19.6	29.4	35.5	34.3	33.1
75°	15.9	28.2	29.4	26.9	25.7
77.5°	13.5	24.5	24.5	22.0	20.8
80°	11.0	19.6	19.6	19.6	17.1
82.5°	9.8	15.9	17.1	17.1	13.5
85°	7.3	13.5	14.7	14.7	9.8
87.5°	4.9	12.2	13.5	12.2	7.3
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	7.58	8.92	7.94	9.23	9.55	16.75	18.09	17.12	18.41	18.72
	3H	8.69	9.88	9.07	10.21	10.58	17.26	18.45	17.64	18.78	19.14
	4H	9.21	10.32	9.61	10.67	11.05	17.28	18.39	17.68	18.74	19.12
	6H	9.65	10.67	10.06	11.04	11.43	17.29	18.31	17.70	18.68	19.07
	8H	9.84	10.80	10.27	11.19	11.60	17.29	18.26	17.72	18.65	19.06
	12H	10.02	10.94	10.45	11.32	11.75	17.30	18.22	17.73	18.60	19.03
4H	2H	8.72	9.83	9.13	10.19	10.57	16.64	17.75	17.05	18.10	18.49
	3H	10.07	10.98	10.48	11.38	11.78	17.23	18.14	17.65	18.55	18.95
	4H	10.80	11.62	11.24	12.04	12.48	17.29	18.10	17.73	18.52	18.97
	6H	11.41	12.12	11.88	12.56	13.03	17.37	18.07	17.83	18.52	18.98
	8H	11.66	12.31	12.12	12.76	13.23	17.40	18.05	17.87	18.50	18.97
	12H	11.89	12.47	12.38	12.95	13.43	17.44	18.02	17.92	18.50	18.98
8H	4H	11.27	11.93	11.74	12.37	12.84	17.25	17.91	17.72	18.35	18.82
	6H	12.12	12.66	12.62	13.15	13.63	17.38	17.91	17.88	18.41	18.89
	8H	12.53	13.01	13.05	13.52	14.02	17.46	17.94	17.98	18.46	18.95
	12H	12.95	13.38	13.46	13.87	14.44	17.58	18.01	18.09	18.50	19.07
12H	4H	11.32	11.91	11.81	12.39	12.86	17.22	17.80	17.71	18.29	18.76
	6H	12.25	12.74	12.77	13.25	13.74	17.36	17.84	17.88	18.36	18.85
	8H	12.77	13.20	13.29	13.70	14.27	17.49	17.92	18.01	18.41	18.98