

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: P1060332

Luminaire Tested: S124RDRP-S1195D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060332  
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-S1195D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

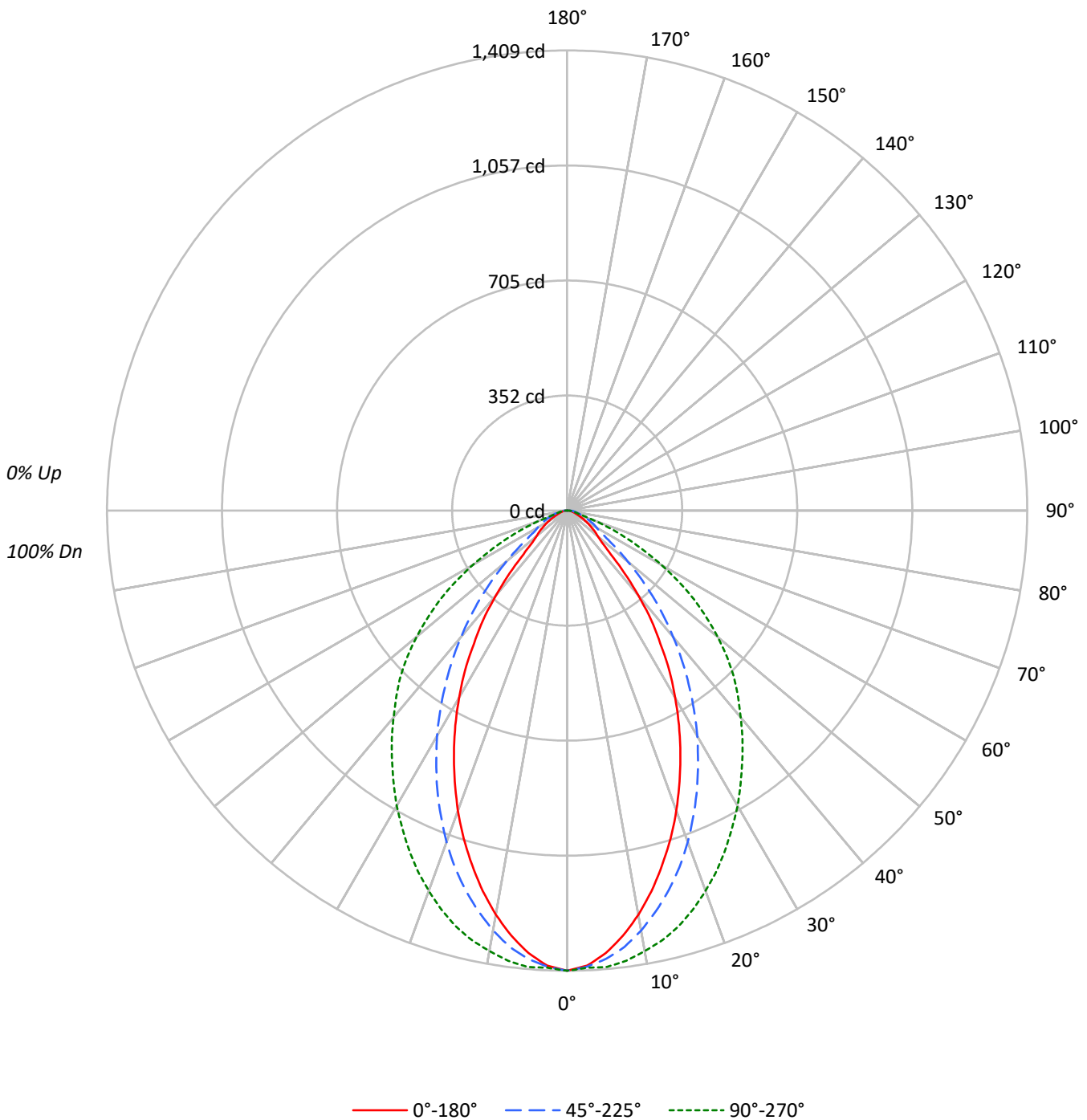
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1994.0 lumens  
Efficiency: N/A  
Efficacy: 47.7 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): 41.8  
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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70					70			
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63					63			
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57					57			
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51					51			
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43					43			
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36					36			

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

	0°	45°	90°
0°	12132	12132	12132
5°	11757	11906	12124
10°	10984	11411	11975
15°	10019	10721	11746
20°	8958	9896	11352
25°	7792	8944	10889
30°	6574	7920	10378
35°	5229	6817	9829
40°	3804	5680	9290
45°	2300	4485	8799
50°	1645	3247	8055
55°	1395	2198	7113
60°	1138	1789	5747
65°	899	1604	4138
70°	753	1347	2180
75°	682	1258	1101
80°	704	1250	1091
85°	929	1867	1245

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8799 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.7	6.5
10°-20°	339.9	17.0
20°-30°	440.8	22.1
30°-40°	424.3	21.3
40°-50°	315.7	15.8
50°-60°	194.1	9.7
60°-70°	95.3	4.8
70°-80°	37.2	1.9
80°-90°	17.0	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°	910.4	45.7
0°-40°	1334.7	66.9
0°-60°	1844.5	92.5
0°-90°	1994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1994.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1360	1380	1377	1390	1403	127
15°	1124	1160	1203	1275	1318	314
25°	820	864	941	1059	1146	375
35°	497	545	648	811	935	311
45°	189	234	368	568	722	157
55°	93	96	146	334	474	84
65°	44	47	79	126	203	45
75°	20	36	38	35	33	22
85°	9	17	19	19	13	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1408.9	1408.9	1408.9	1408.9	1408.9
2.5°	1394.7	1410.4	1397.8	1399.4	1401.0
5°	1360.1	1380.5	1377.4	1390.0	1402.6
7.5°	1312.8	1336.4	1347.5	1372.6	1390.0
10°	1256.2	1282.9	1305.0	1345.9	1369.5
12.5°	1193.2	1224.7	1256.2	1311.3	1347.5
15°	1123.9	1160.1	1202.6	1275.1	1317.6
17.5°	1053.1	1089.3	1144.4	1227.8	1281.3
20°	977.5	1016.9	1079.9	1172.7	1238.8
22.5°	898.8	941.3	1010.6	1116.1	1194.8
25°	820.1	864.2	941.3	1059.4	1146.0
27.5°	741.4	783.9	867.3	999.6	1094.0
30°	661.1	705.2	796.5	935.0	1043.7
32.5°	584.0	624.9	722.5	873.6	988.6
35°	497.4	544.7	648.5	810.7	935.0
37.5°	423.4	465.9	577.7	747.7	881.5
40°	338.4	385.7	505.3	686.3	826.4
42.5°	259.7	307.0	436.0	624.9	774.5
45°	188.9	234.5	368.3	568.3	722.5
47.5°	143.2	170.0	302.2	513.2	664.3
50°	122.8	130.7	242.4	453.4	601.3
52.5°	108.6	111.8	188.9	393.5	538.4
55°	92.9	96.0	146.4	333.7	473.8
57.5°	78.7	80.3	118.1	277.0	404.6
60°	66.1	67.7	103.9	222.0	333.7
62.5°	55.1	56.7	92.9	171.6	266.0
65°	44.1	47.2	78.7	125.9	203.1
67.5°	36.2	42.5	66.1	88.2	141.7
70°	29.9	40.9	53.5	61.4	86.6
72.5°	25.2	37.8	45.6	44.1	42.5
75°	20.5	36.2	37.8	34.6	33.1
77.5°	17.3	31.5	31.5	28.3	26.8
80°	14.2	25.2	25.2	25.2	22.0
82.5°	12.6	20.5	22.0	22.0	17.3
85°	9.4	17.3	18.9	18.9	12.6
87.5°	6.3	15.7	17.3	15.7	9.4
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	8.46	9.80	8.82	10.11	10.43	17.62	18.97	17.99	19.28	19.59
	3H	9.57	10.76	9.95	11.09	11.45	18.13	19.32	18.51	19.65	20.02
	4H	10.09	11.20	10.49	11.55	11.93	18.15	19.26	18.55	19.61	19.99
	6H	10.52	11.54	10.93	11.91	12.30	18.16	19.18	18.58	19.55	19.95
	8H	10.71	11.68	11.14	12.07	12.47	18.16	19.13	18.59	19.52	19.93
	12H	10.89	11.82	11.32	12.20	12.63	18.17	19.09	18.60	19.48	19.91
4H	2H	9.60	10.71	10.00	11.06	11.45	17.52	18.63	17.92	18.98	19.36
	3H	10.94	11.85	11.35	12.25	12.66	18.11	19.01	18.52	19.42	19.82
	4H	11.68	12.49	12.11	12.91	13.35	18.16	18.98	18.60	19.40	19.84
	6H	12.29	12.99	12.75	13.43	13.90	18.24	18.94	18.70	19.39	19.85
	8H	12.53	13.19	13.00	13.63	14.10	18.27	18.93	18.74	19.37	19.84
	12H	12.76	13.35	13.25	13.83	14.30	18.31	18.89	18.80	19.37	19.85
8H	4H	12.14	12.80	12.61	13.25	13.72	18.12	18.78	18.59	19.23	19.70
	6H	12.99	13.53	13.50	14.03	14.51	18.25	18.79	18.75	19.28	19.76
	8H	13.40	13.88	13.92	14.40	14.89	18.33	18.82	18.85	19.33	19.82
	12H	13.82	14.25	14.34	14.75	15.32	18.45	18.88	18.97	19.38	19.95
12H	4H	12.20	12.78	12.68	13.26	13.73	18.09	18.68	18.58	19.16	19.63
	6H	13.13	13.61	13.65	14.12	14.62	18.23	18.71	18.75	19.23	19.72
	8H	13.65	14.08	14.16	14.57	15.14	18.36	18.79	18.88	19.29	19.86