

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: P1060335

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060335  
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-S1195D850-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, 80 CRI LEDS  
Ballast/Driver: -

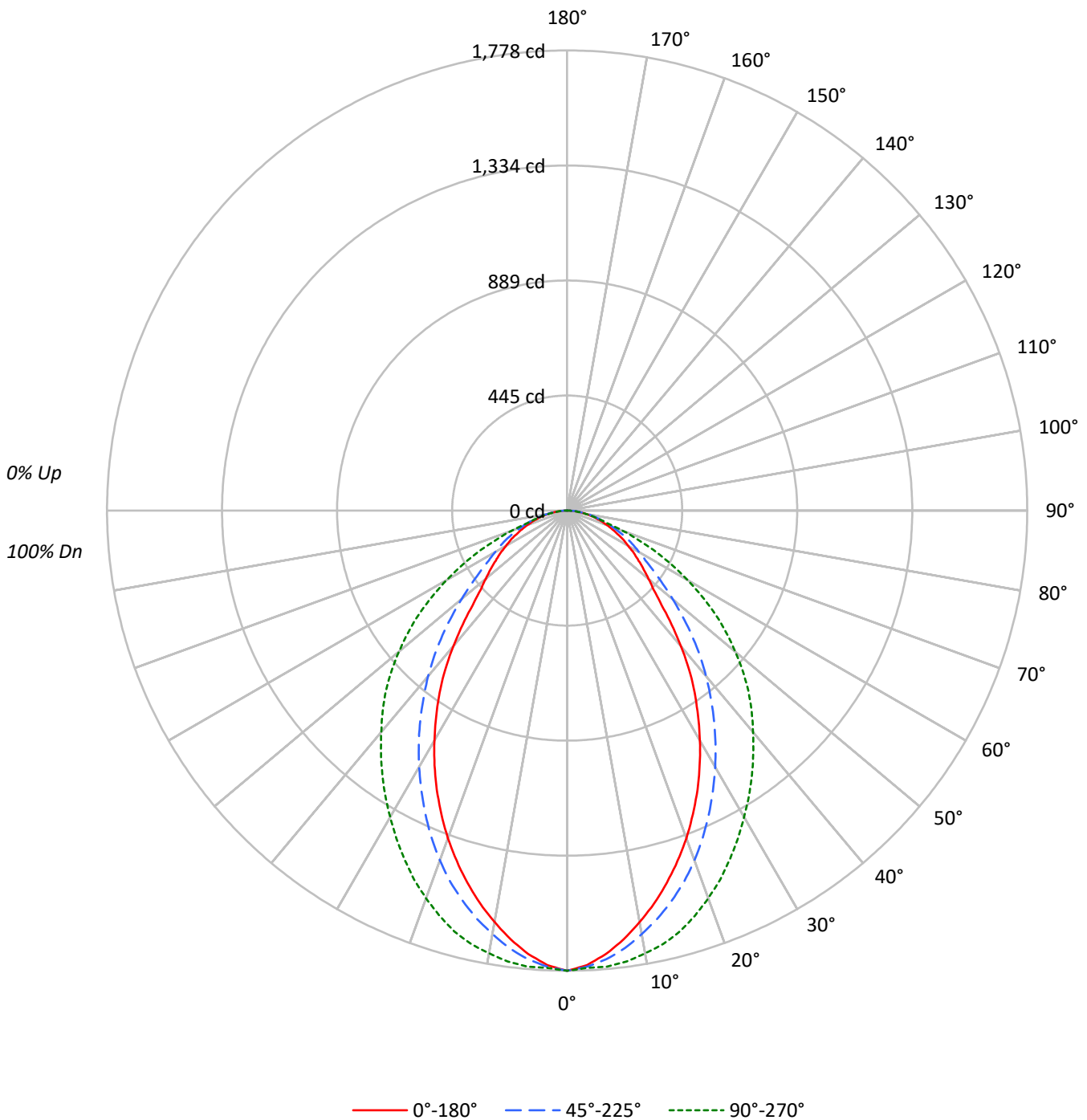
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3262.7 lumens  
Efficiency: N/A  
Efficacy: 78.1 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): 41.8  
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	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°	15311	15311	15311
5°	14867	15043	15288
10°	14116	14529	15190
15°	13271	13915	15010
20°	12343	13179	14607
25°	11318	12304	14128
30°	10201	11375	13596
35°	9031	10404	13085
40°	7677	9392	12558
45°	6285	8297	12072
50°	5502	7126	11362
55°	5055	6142	10512
60°	4688	5528	9267
65°	4393	5194	7759
70°	4119	4753	5824
75°	3873	4345	4242
80°	3590	3977	3590
85°	3260	3883	3112

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12072 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.3	5.0
10°-20°	442.1	13.6
20°-30°	604.3	18.5
30°-40°	635.2	19.5
40°-50°	551.2	16.9
50°-60°	415.8	12.7
60°-70°	269.5	8.3
70°-80°	138.3	4.2
80°-90°	41.9	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°	1210.8	37.1
0°-40°	1846.0	56.6
0°-60°	2812.9	86.2
0°-90°	3262.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3262.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1778	1778	1778	1778	1778	
5°	1720	1744	1740	1754	1769	161
15°	1489	1525	1561	1632	1684	417
25°	1191	1234	1295	1394	1487	546
35°	859	906	990	1122	1245	534
45°	516	565	681	851	991	406
55°	337	346	409	581	700	303
65°	216	220	255	308	381	215
75°	116	131	131	132	128	124
85°	33	41	39	38	32	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1778.1	1778.1	1778.1	1778.1	1778.1
2.5°	1757.6	1779.7	1763.9	1767.1	1768.6
5°	1719.9	1743.5	1740.3	1754.5	1768.6
7.5°	1671.1	1699.4	1705.7	1734.0	1757.6
10°	1614.4	1645.9	1661.6	1707.3	1737.2
12.5°	1554.6	1586.1	1614.4	1672.7	1715.1
15°	1488.6	1524.7	1560.9	1631.7	1683.7
17.5°	1419.3	1457.1	1502.7	1579.8	1641.2
20°	1346.9	1384.7	1438.2	1521.6	1594.0
22.5°	1269.8	1312.3	1369.0	1458.7	1543.6
25°	1191.2	1233.6	1295.0	1394.1	1487.0
27.5°	1109.3	1153.4	1219.5	1329.6	1428.8
30°	1025.9	1073.1	1144.0	1260.4	1367.4
32.5°	941.0	991.3	1066.8	1191.2	1307.6
35°	859.1	906.3	989.7	1121.9	1244.7
37.5°	774.2	821.4	911.1	1054.3	1181.7
40°	682.9	734.8	835.5	983.5	1117.2
42.5°	597.9	649.9	758.4	915.8	1055.8
45°	516.1	564.9	681.3	851.3	991.3
47.5°	453.2	487.8	604.2	788.3	922.1
50°	410.7	426.4	531.9	719.1	848.1
52.5°	372.9	385.5	465.8	649.9	775.7
55°	336.7	346.2	409.1	580.6	700.2
57.5°	305.3	310.0	358.8	511.4	618.4
60°	272.2	278.5	321.0	440.6	538.1
62.5°	245.5	248.6	288.0	372.9	457.9
65°	215.6	220.3	254.9	308.4	380.8
67.5°	188.8	196.7	220.3	251.8	300.5
70°	163.6	174.7	188.8	204.6	231.3
72.5°	140.0	152.6	160.5	166.8	162.1
75°	116.4	130.6	130.6	132.2	127.5
77.5°	94.4	107.0	105.4	103.9	97.6
80°	72.4	83.4	80.2	78.7	72.4
82.5°	53.5	61.4	58.2	56.6	48.8
85°	33.0	40.9	39.3	37.8	31.5
87.5°	15.7	23.6	22.0	20.5	14.2
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	15.98	17.47	16.35	17.78	18.10	19.72	21.21	20.09	21.52	21.84
	3H	17.65	18.98	18.03	19.31	19.67	20.85	22.18	21.23	22.51	22.87
	4H	18.32	19.57	18.72	19.91	20.29	21.14	22.39	21.54	22.74	23.12
	6H	18.82	19.98	19.24	20.34	20.74	21.34	22.50	21.76	22.86	23.26
	8H	19.00	20.10	19.43	20.49	20.89	21.40	22.50	21.82	22.89	23.29
	12H	19.12	20.17	19.55	20.55	20.98	21.43	22.48	21.86	22.86	23.29
4H	2H	16.78	18.02	17.18	18.37	18.75	19.89	21.14	20.29	21.48	21.86
	3H	18.65	19.68	19.06	20.08	20.48	21.22	22.25	21.63	22.65	23.05
	4H	19.45	20.38	19.88	20.80	21.24	21.63	22.57	22.07	22.98	23.42
	6H	20.09	20.90	20.55	21.35	21.81	21.96	22.77	22.41	23.21	23.67
	8H	20.32	21.07	20.78	21.52	21.99	22.05	22.81	22.51	23.25	23.72
	12H	20.48	21.16	20.97	21.64	22.11	22.12	22.80	22.60	23.28	23.75
8H	4H	19.80	20.56	20.26	21.00	21.47	21.77	22.52	22.23	22.97	23.44
	6H	20.59	21.21	21.09	21.71	22.18	22.19	22.81	22.68	23.30	23.78
	8H	20.91	21.47	21.42	21.98	22.47	22.34	22.90	22.86	23.42	23.90
	12H	21.17	21.67	21.68	22.16	22.73	22.48	22.98	22.99	23.47	24.04
12H	4H	19.83	20.50	20.31	20.98	21.46	21.77	22.45	22.25	22.93	23.40
	6H	20.65	21.21	21.16	21.72	22.21	22.21	22.77	22.72	23.28	23.77
	8H	21.04	21.53	21.55	22.02	22.59	22.42	22.91	22.93	23.41	23.97