

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: P1060568

Luminaire Tested: S124RDRP-S795D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060568  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S795D840-X4F0-XX-UDD-WVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

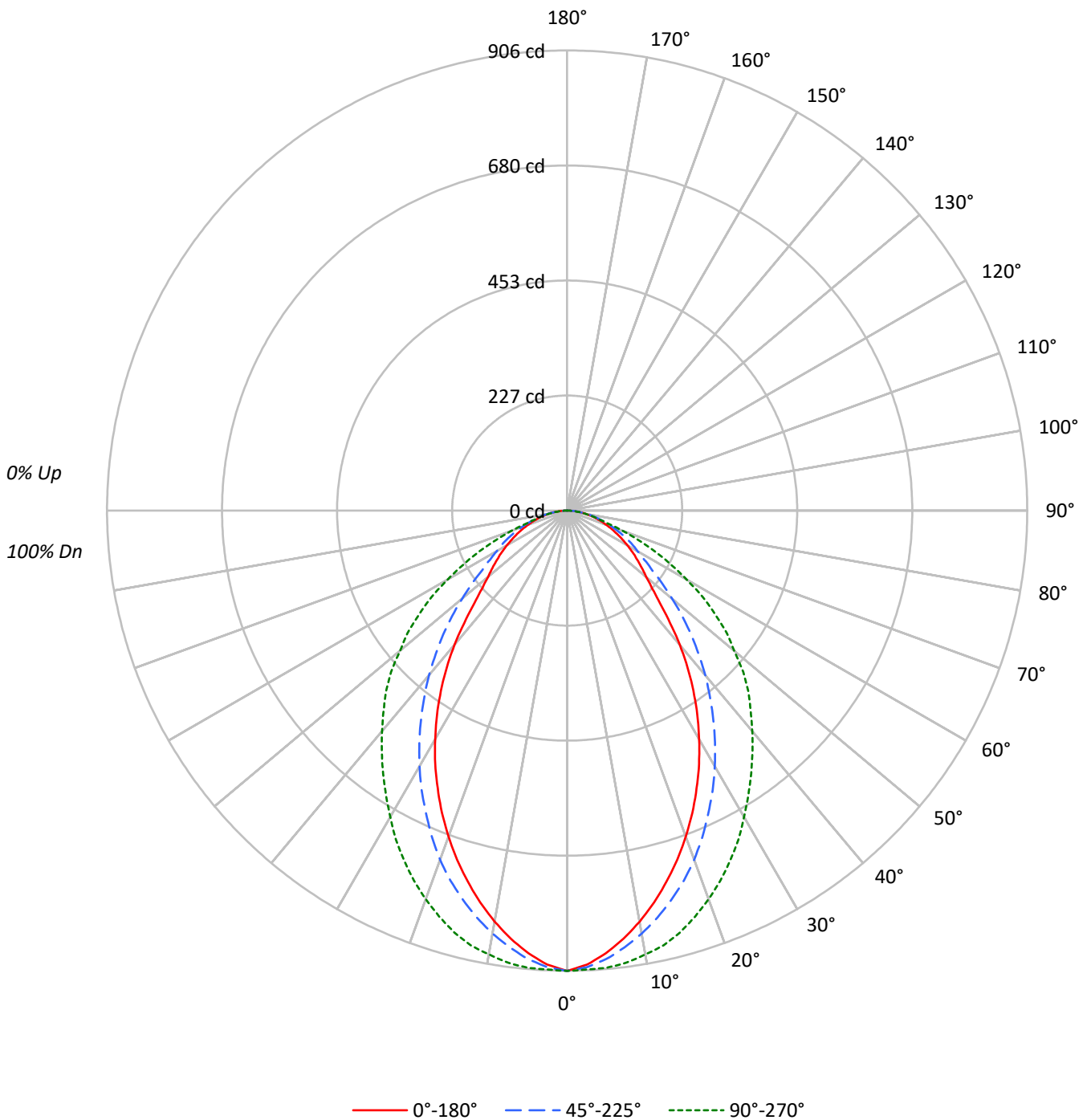
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1649.9 lumens  
Efficiency: N/A  
Efficacy: 63.9 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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	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	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31

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

	0°	45°	90°
0°	7804	7804	7804
5°	7563	7661	7809
10°	7185	7393	7759
15°	6741	7071	7664
20°	6259	6703	7460
25°	5731	6246	7221
30°	5167	5781	6924
35°	4554	5273	6641
40°	3876	4752	6375
45°	3147	4199	6143
50°	2724	3614	5752
55°	2524	3066	5334
60°	2356	2764	4679
65°	2207	2594	3890
70°	2057	2392	2941
75°	1960	2213	2116
80°	1835	2023	1790
85°	1690	1877	1403

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6143 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.7	5.1
10°-20°	224.9	13.6
20°-30°	307.1	18.6
30°-40°	321.7	19.5
40°-50°	278.5	16.9
50°-60°	209.2	12.7
60°-70°	134.9	8.2
70°-80°	69.2	4.2
80°-90°	20.6	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°	615.7	37.3
0°-40°	937.4	56.8
0°-60°	1425.1	86.4
0°-90°	1649.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1649.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	906	906	906	906	906	
5°	875	888	886	893	903	82
15°	756	775	793	829	860	212
25°	603	626	657	709	760	277
35°	433	458	502	568	632	270
45°	258	285	345	429	504	204
55°	168	174	204	292	355	151
65°	108	110	127	154	191	108
75°	59	66	66	66	64	62
85°	17	20	19	18	14	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	906.3	906.3	906.3	906.3	906.3
2.5°	894.9	906.3	899.6	901.5	904.4
5°	874.9	888.2	886.3	893.0	903.4
7.5°	850.2	864.5	867.3	882.5	897.7
10°	821.7	837.9	845.5	868.3	887.3
12.5°	790.4	807.5	820.8	849.3	876.8
15°	756.2	775.2	793.2	829.3	859.7
17.5°	721.0	740.0	763.8	803.7	837.9
20°	683.0	703.9	731.5	773.3	814.1
22.5°	644.1	665.9	695.4	741.0	788.5
25°	603.2	626.0	657.4	708.7	760.0
27.5°	562.4	585.2	620.3	674.5	730.5
30°	519.6	543.4	581.4	640.3	696.3
32.5°	476.9	502.5	541.5	604.2	664.0
35°	433.2	457.9	501.6	568.1	631.7
37.5°	389.5	415.1	461.7	532.9	599.4
40°	344.8	371.4	422.7	497.8	567.1
42.5°	300.2	328.7	382.8	461.7	534.8
45°	258.4	285.0	344.8	429.4	504.4
47.5°	227.0	245.1	306.8	398.0	470.2
50°	203.3	212.8	269.8	363.8	429.4
52.5°	185.2	191.9	235.6	326.8	396.1
55°	168.1	173.8	204.2	291.6	355.3
57.5°	152.9	155.8	180.5	257.4	316.3
60°	136.8	139.6	160.5	220.4	271.7
62.5°	122.5	124.4	144.4	185.2	230.8
65°	108.3	110.2	127.3	153.9	190.9
67.5°	95.0	97.8	111.1	125.4	152.0
70°	81.7	87.4	95.0	101.6	116.8
72.5°	70.3	76.0	79.8	81.7	82.6
75°	58.9	65.5	66.5	65.5	63.6
77.5°	47.5	53.2	53.2	51.3	49.4
80°	37.0	41.8	40.8	38.9	36.1
82.5°	27.5	30.4	29.4	27.5	24.7
85°	17.1	19.9	19.0	18.0	14.2
87.5°	8.5	11.4	10.4	9.5	5.7
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	13.57	15.05	13.94	15.37	15.68	17.34	18.83	17.71	19.14	19.46
	3H	15.23	16.55	15.60	16.88	17.25	18.46	19.79	18.84	20.11	20.48
	4H	15.90	17.14	16.30	17.49	17.87	18.75	19.99	19.15	20.34	20.72
	6H	16.41	17.56	16.82	17.93	18.32	18.94	20.09	19.36	20.46	20.85
	8H	16.59	17.68	17.02	18.07	18.48	19.00	20.09	19.42	20.48	20.88
	12H	16.71	17.76	17.15	18.14	18.57	19.02	20.07	19.45	20.45	20.88
4H	2H	14.35	15.60	14.75	15.95	16.33	17.50	18.75	17.90	19.10	19.48
	3H	16.22	17.25	16.63	17.65	18.05	18.81	19.85	19.23	20.25	20.65
	4H	17.02	17.95	17.46	18.37	18.81	19.22	20.15	19.65	20.57	21.01
	6H	17.67	18.48	18.13	18.92	19.38	19.54	20.35	20.00	20.79	21.25
	8H	17.90	18.65	18.36	19.10	19.57	19.63	20.38	20.09	20.83	21.30
	12H	18.07	18.74	18.55	19.22	19.69	19.69	20.36	20.17	20.84	21.32
8H	4H	17.37	18.13	17.84	18.57	19.04	19.35	20.11	19.82	20.55	21.02
	6H	18.17	18.79	18.66	19.28	19.76	19.77	20.39	20.26	20.88	21.36
	8H	18.49	19.05	19.00	19.56	20.04	19.92	20.48	20.43	20.99	21.48
	12H	18.75	19.24	19.26	19.74	20.30	20.04	20.53	20.55	21.03	21.59
12H	4H	17.40	18.08	17.89	18.55	19.03	19.36	20.03	19.84	20.51	20.98
	6H	18.23	18.79	18.74	19.30	19.79	19.79	20.35	20.30	20.86	21.35
	8H	18.61	19.11	19.12	19.60	20.17	19.99	20.48	20.50	20.98	21.54