

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: P1060670

Luminaire Tested: S124RDRP-H1020D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060670  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H1020D930-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

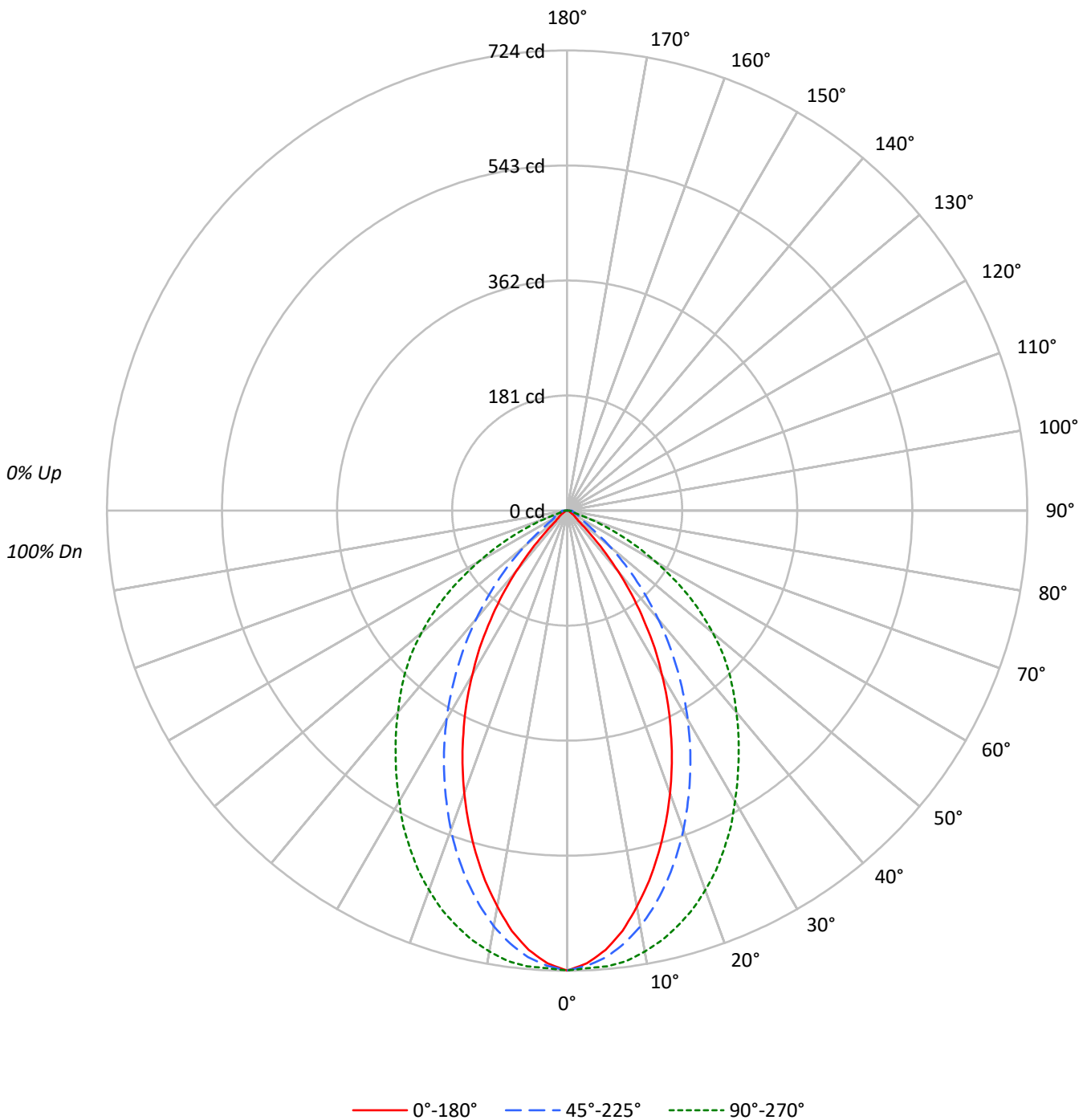
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 908.0 lumens  
Efficiency: N/A  
Efficacy: 29.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	6230	6230	6230
5°	5997	6097	6221
10°	5531	5807	6158
15°	4964	5391	6023
20°	4338	4900	5823
25°	3669	4353	5563
30°	2963	3773	5250
35°	2207	3153	4946
40°	1401	2499	4654
45°	560	1833	4388
50°	244	1168	4006
55°	188	604	3497
60°	133	413	2773
65°	98	410	1895
70°	96	363	869
75°	126	383	349
80°	188	426	382
85°	375	761	563

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4388 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.2	7.3
10°-20°	170.8	18.8
20°-30°	215.8	23.8
30°-40°	198.2	21.8
40°-50°	135.1	14.9
50°-60°	73.3	8.1
60°-70°	31.1	3.4
70°-80°	10.7	1.2
80°-90°	6.8	0.8
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°	452.8	49.9
0°-40°	651.0	71.7
0°-60°	859.4	94.6
0°-90°	908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	908.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	694	704	705	711	720	64
15°	557	575	605	648	676	155
25°	386	411	458	529	586	177
35°	210	238	300	394	470	130
45°	46	74	150	266	360	42
55°	12	13	40	147	233	11
65°	5	6	20	46	93	5
75°	4	10	12	10	10	4
85°	4	8	8	8	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	723.5	723.5	723.5	723.5	723.5
2.5°	713.0	721.6	716.8	718.7	720.6
5°	693.8	704.3	705.3	711.1	719.7
7.5°	667.0	679.4	687.1	701.5	714.9
10°	632.5	647.8	664.1	687.1	704.3
12.5°	596.1	612.4	636.3	668.9	691.9
15°	556.8	575.0	604.7	647.8	675.6
17.5°	515.6	535.7	571.1	621.9	657.4
20°	473.4	495.4	534.7	592.2	635.4
22.5°	430.3	453.3	496.4	561.6	612.4
25°	386.2	411.1	458.1	529.0	585.5
27.5°	344.0	367.0	418.8	496.4	558.7
30°	298.0	323.9	379.5	462.9	528.0
32.5°	255.9	280.8	339.2	428.4	499.3
35°	209.9	237.7	299.9	393.9	470.5
37.5°	166.7	193.6	261.6	361.3	442.7
40°	124.6	152.4	222.3	328.7	414.0
42.5°	83.4	113.1	185.0	295.2	387.2
45°	46.0	73.8	150.5	266.4	360.3
47.5°	24.0	40.2	117.9	237.7	331.6
50°	18.2	22.0	87.2	206.0	299.0
52.5°	15.3	16.3	59.4	174.4	266.4
55°	12.5	13.4	40.2	146.6	232.9
57.5°	9.6	10.5	28.7	119.8	195.5
60°	7.7	8.6	24.0	92.0	161.0
62.5°	5.7	6.7	23.0	68.0	126.5
65°	4.8	5.7	20.1	46.0	93.0
67.5°	3.8	5.7	17.2	29.7	62.3
70°	3.8	7.7	14.4	19.2	34.5
72.5°	3.8	8.6	12.5	12.5	12.5
75°	3.8	10.5	11.5	10.5	10.5
77.5°	3.8	9.6	9.6	9.6	9.6
80°	3.8	8.6	8.6	8.6	7.7
82.5°	3.8	7.7	8.6	8.6	6.7
85°	3.8	7.7	7.7	7.7	5.7
87.5°	2.9	7.7	7.7	7.7	3.8
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	0.00	0.00	0.00	0.00	0.00	14.80	16.07	15.16	16.39	16.70
	3H	0.00	0.00	0.00	0.00	0.11	15.15	16.28	15.53	16.61	16.98
	4H	0.00	0.72	0.07	1.07	1.45	15.12	16.17	15.52	16.52	16.91
	6H	1.03	2.00	1.45	2.37	2.76	15.10	16.06	15.51	16.43	16.82
	8H	1.71	2.62	2.14	3.02	3.42	15.09	16.00	15.52	16.39	16.79
	12H	2.51	3.38	2.95	3.77	4.20	15.08	15.95	15.52	16.34	16.77
4H	2H	0.48	1.53	0.89	1.88	2.27	14.60	15.65	15.00	16.00	16.39
	3H	1.91	2.77	2.32	3.17	3.57	15.00	15.85	15.41	16.26	16.66
	4H	3.35	4.12	3.79	4.54	4.98	14.98	15.74	15.41	16.16	16.60
	6H	4.60	5.26	5.06	5.70	6.17	15.00	15.65	15.46	16.10	16.57
	8H	5.17	5.78	5.64	6.23	6.70	15.00	15.62	15.47	16.07	16.54
	12H	5.84	6.38	6.33	6.87	7.34	15.04	15.58	15.53	16.07	16.54
8H	4H	4.43	5.05	4.90	5.50	5.97	14.88	15.49	15.35	15.94	16.41
	6H	6.04	6.55	6.55	7.04	7.52	14.93	15.43	15.43	15.93	16.41
	8H	6.88	7.33	7.40	7.85	8.34	14.98	15.44	15.51	15.95	16.44
	12H	7.85	8.25	8.36	8.74	9.32	15.10	15.50	15.62	15.99	16.57
12H	4H	4.62	5.16	5.11	5.65	6.12	14.84	15.38	15.33	15.86	16.34
	6H	6.39	6.84	6.91	7.36	7.85	14.89	15.35	15.42	15.86	16.36
	8H	7.41	7.81	7.93	8.31	8.88	15.00	15.40	15.51	15.89	16.47