

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: P1060482

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060482  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D840-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

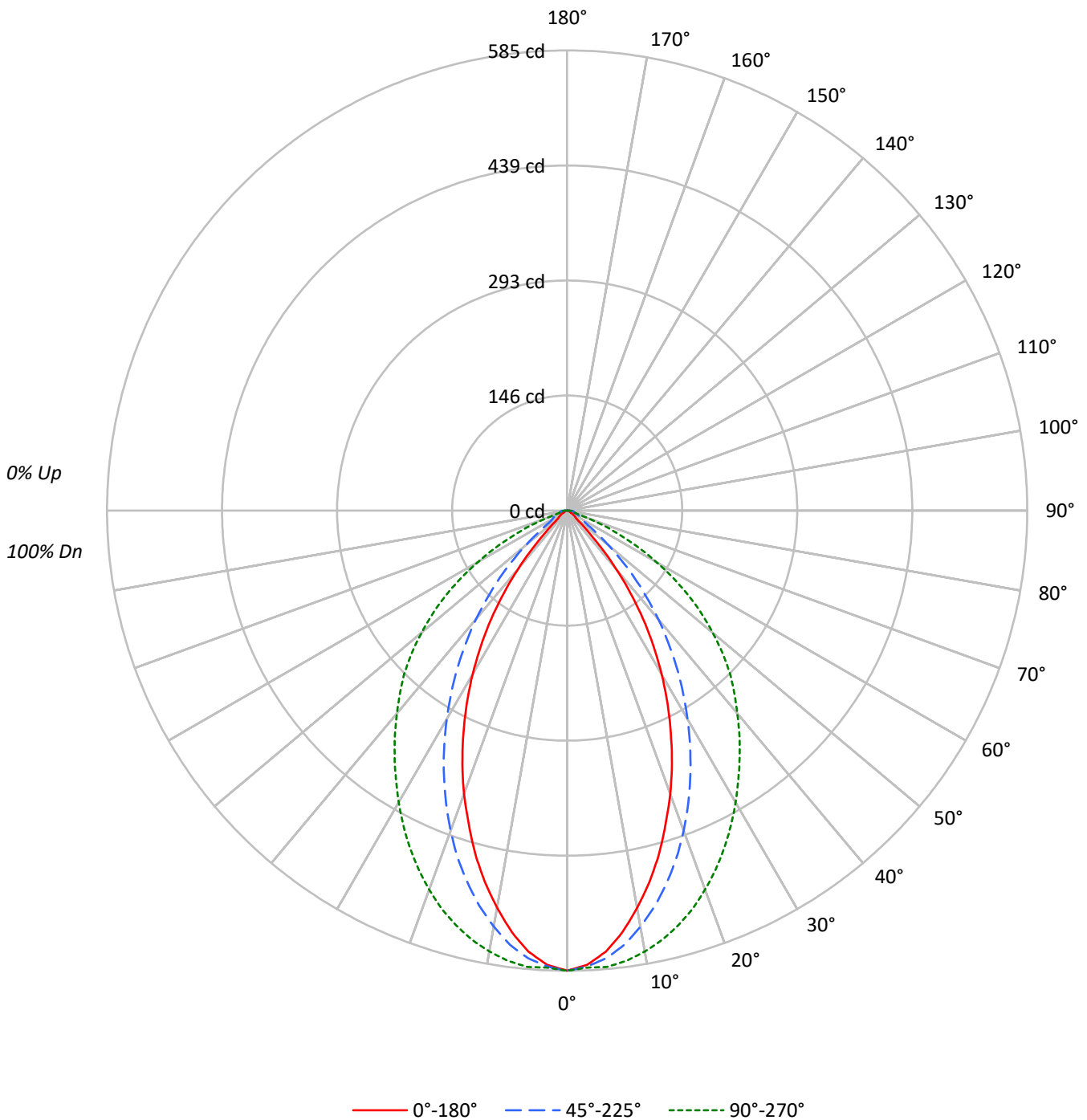
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 737.2 lumens  
Efficiency: N/A  
Efficacy: 37.6 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

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

	0°	45°	90°
0°	5037	5037	5037
5°	4866	4937	5033
10°	4484	4695	4976
15°	4027	4364	4866
20°	3511	3970	4699
25°	2962	3522	4494
30°	2389	3045	4260
35°	1768	2547	4020
40°	1096	2030	3781
45°	435	1480	3562
50°	193	928	3238
55°	155	485	2834
60°	107	367	2258
65°	69	363	1553
70°	68	327	725
75°	90	319	319
80°	134	377	377
85°	267	751	543

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3562 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.7	7.3
10°-20°	138.5	18.8
20°-30°	174.8	23.7
30°-40°	160.4	21.8
40°-50°	109.2	14.8
50°-60°	59.5	8.1
60°-70°	25.7	3.5
70°-80°	9.4	1.3
80°-90°	6.1	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°	366.9	49.8
0°-40°	527.3	71.5
0°-60°	696.0	94.4
0°-90°	737.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	737.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	563	570	571	577	582	52
15°	452	468	490	524	546	126
25°	312	334	371	430	473	142
35°	168	193	242	319	382	104
45°	36	60	122	216	292	33
55°	10	11	32	119	189	9
65°	3	5	18	37	76	4
75°	3	9	10	10	10	3
85°	3	6	8	8	6	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	584.9	584.9	584.9	584.9	584.9
2.5°	578.0	584.9	580.1	581.5	581.5
5°	562.9	570.5	571.2	577.4	582.2
7.5°	540.3	551.3	556.8	569.1	577.4
10°	512.8	525.9	536.9	558.1	569.1
12.5°	483.3	498.4	514.9	543.0	558.8
15°	451.7	467.5	489.5	524.5	545.8
17.5°	416.7	435.9	462.7	504.6	530.7
20°	383.1	402.3	433.2	480.6	512.8
22.5°	348.1	368.0	402.3	455.2	493.6
25°	311.7	333.6	370.7	429.8	473.0
27.5°	276.0	299.3	338.5	403.0	451.0
30°	240.3	263.6	306.2	375.5	428.4
32.5°	203.9	227.9	273.9	346.7	405.0
35°	168.2	192.9	242.3	319.2	382.4
37.5°	131.8	157.9	210.8	292.5	359.7
40°	97.5	123.6	180.6	265.7	336.4
42.5°	65.2	91.3	149.7	239.6	314.4
45°	35.7	59.7	121.5	215.6	292.5
47.5°	19.2	33.0	94.1	192.2	267.7
50°	14.4	17.8	69.3	167.5	241.7
52.5°	12.4	13.7	48.1	141.4	215.6
55°	10.3	11.0	32.3	118.8	188.8
57.5°	8.2	8.9	24.0	96.1	160.0
60°	6.2	7.6	21.3	74.1	131.1
62.5°	4.8	6.2	19.9	54.2	103.7
65°	3.4	4.8	17.8	37.1	76.2
67.5°	3.4	5.5	15.1	24.0	51.5
70°	2.7	7.6	13.0	15.8	28.8
72.5°	2.7	8.2	11.0	11.0	11.0
75°	2.7	8.9	9.6	9.6	9.6
77.5°	2.7	8.2	8.9	8.2	8.2
80°	2.7	7.6	7.6	7.6	7.6
82.5°	2.7	6.9	7.6	7.6	6.2
85°	2.7	6.2	7.6	7.6	5.5
87.5°	2.1	6.2	6.9	6.9	4.1
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	14.03	15.30	14.39	15.62	15.93
	3H	0.00	0.00	0.00	0.00	0.00	14.40	15.53	14.78	15.86	16.23
	4H	0.00	0.33	0.00	0.68	1.06	14.38	15.43	14.78	15.78	16.17
	6H	0.45	1.41	0.86	1.78	2.18	14.37	15.33	14.78	15.70	16.10
	8H	1.03	1.95	1.46	2.34	2.74	14.37	15.28	14.80	15.67	16.08
	12H	1.70	2.57	2.13	2.95	3.38	14.38	15.26	14.81	15.64	16.07
4H	2H	0.25	1.31	0.66	1.66	2.04	13.84	14.89	14.24	15.24	15.62
	3H	1.84	2.70	2.26	3.11	3.51	14.26	15.11	14.67	15.52	15.92
	4H	3.13	3.90	3.57	4.32	4.76	14.25	15.02	14.69	15.44	15.88
	6H	4.26	4.92	4.72	5.37	5.83	14.29	14.96	14.76	15.40	15.87
	8H	4.77	5.38	5.24	5.83	6.30	14.32	14.94	14.79	15.39	15.86
	12H	5.31	5.86	5.80	6.34	6.82	14.39	14.93	14.88	15.42	15.89
8H	4H	4.22	4.84	4.69	5.28	5.76	14.16	14.78	14.63	15.23	15.70
	6H	5.77	6.27	6.27	6.77	7.25	14.24	14.75	14.75	15.25	15.73
	8H	6.58	7.04	7.10	7.55	8.05	14.33	14.78	14.85	15.30	15.79
	12H	7.41	7.81	7.93	8.31	8.88	14.50	14.90	15.02	15.40	15.97
12H	4H	4.41	4.96	4.90	5.44	5.91	14.13	14.67	14.61	15.16	15.63
	6H	6.13	6.59	6.65	7.10	7.59	14.22	14.67	14.74	15.19	15.68
	8H	7.15	7.55	7.66	8.05	8.62	14.36	14.76	14.87	15.25	15.83