

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: P1060473

Luminaire Tested: S124RDRP-S575D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060473  
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-S575D835-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

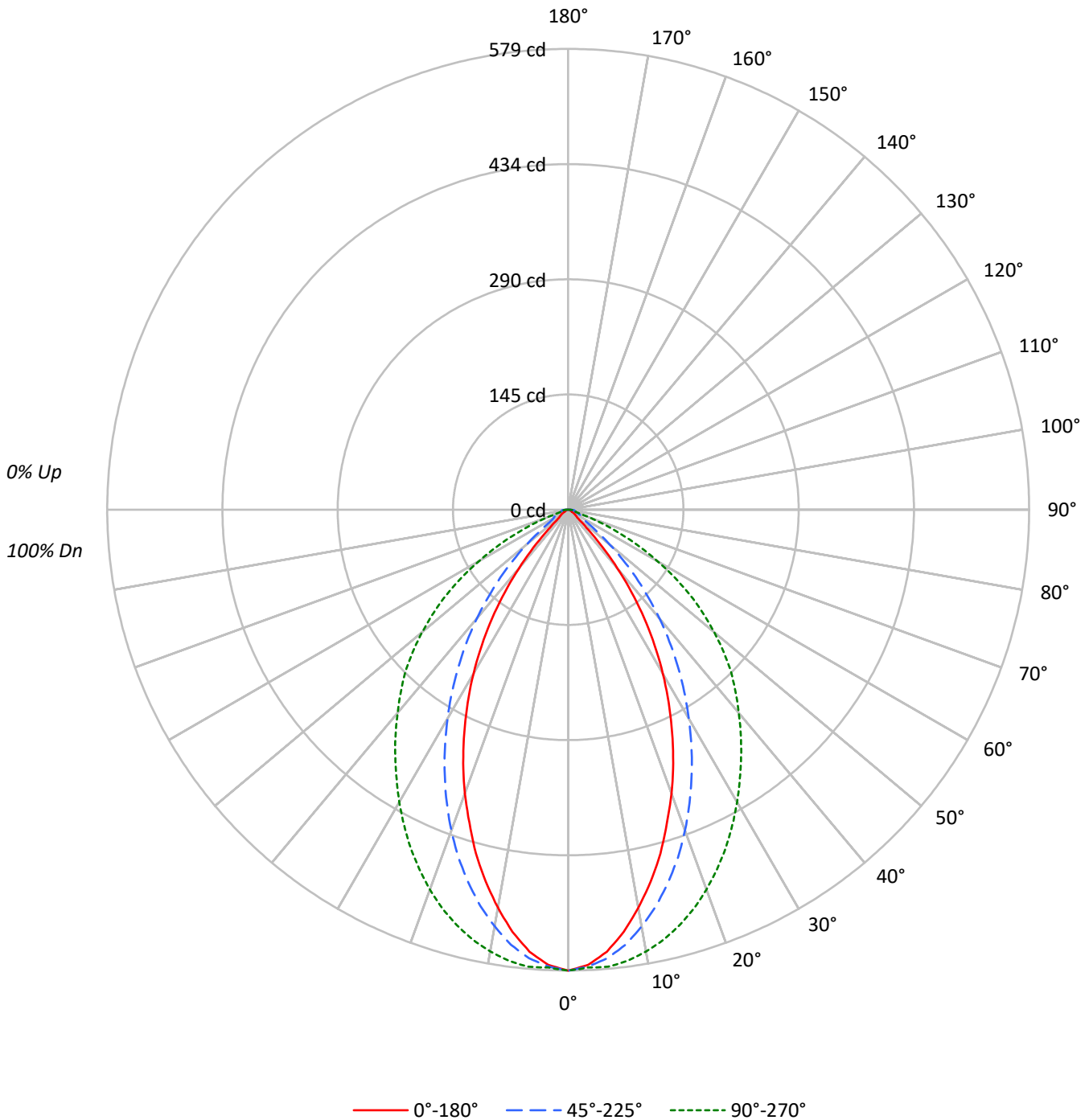
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 730.0 lumens  
Efficiency: N/A  
Efficacy: 37.2 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): 19.6  
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	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°	4988	4988	4988
5°	4818	4889	4983
10°	4440	4648	4928
15°	3988	4321	4819
20°	3476	3931	4653
25°	2932	3488	4450
30°	2366	3015	4218
35°	1751	2523	3981
40°	1085	2010	3744
45°	431	1465	3527
50°	192	920	3206
55°	153	480	2806
60°	105	363	2235
65°	69	361	1538
70°	68	325	720
75°	90	316	316
80°	134	372	372
85°	267	741	534

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3527 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.1	7.3
10°-20°	137.1	18.8
20°-30°	173.1	23.7
30°-40°	158.8	21.8
40°-50°	108.1	14.8
50°-60°	58.9	8.1
60°-70°	25.5	3.5
70°-80°	9.3	1.3
80°-90°	6.0	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°	363.3	49.8
0°-40°	522.1	71.5
0°-60°	689.2	94.4
0°-90°	730.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	730.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	579	579	579	579	579	
5°	557	565	566	572	576	52
15°	447	463	485	519	540	124
25°	309	330	367	426	468	141
35°	167	191	240	316	379	103
45°	35	59	120	214	290	33
55°	10	11	32	118	187	9
65°	3	5	18	37	76	4
75°	3	9	10	10	10	3
85°	3	6	8	8	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	579.2	579.2	579.2	579.2	579.2
2.5°	572.4	579.2	574.4	575.8	575.8
5°	557.4	564.9	565.6	571.7	576.5
7.5°	535.0	545.9	551.3	563.6	571.7
10°	507.8	520.7	531.6	552.7	563.6
12.5°	478.6	493.5	509.9	537.7	553.4
15°	447.3	463.0	484.7	519.4	540.5
17.5°	412.6	431.7	458.2	499.7	525.5
20°	379.3	398.4	429.0	475.9	507.8
22.5°	344.7	364.4	398.4	450.7	488.8
25°	308.6	330.4	367.1	425.6	468.4
27.5°	273.3	296.4	335.1	399.0	446.6
30°	237.9	261.0	303.2	371.9	424.2
32.5°	201.9	225.7	271.2	343.3	401.1
35°	166.6	191.0	240.0	316.1	378.7
37.5°	130.5	156.4	208.7	289.6	356.2
40°	96.5	122.4	178.8	263.1	333.1
42.5°	64.6	90.4	148.2	237.3	311.4
45°	35.4	59.1	120.3	213.5	289.6
47.5°	19.0	32.6	93.1	190.3	265.1
50°	14.3	17.7	68.7	165.9	239.3
52.5°	12.2	13.6	47.6	140.0	213.5
55°	10.2	10.9	32.0	117.6	186.9
57.5°	8.2	8.8	23.8	95.2	158.4
60°	6.1	7.5	21.1	73.4	129.8
62.5°	4.8	6.1	19.7	53.7	102.7
65°	3.4	4.8	17.7	36.7	75.5
67.5°	3.4	5.4	15.0	23.8	51.0
70°	2.7	7.5	12.9	15.6	28.6
72.5°	2.7	8.2	10.9	10.9	10.9
75°	2.7	8.8	9.5	9.5	9.5
77.5°	2.7	8.2	8.8	8.2	8.2
80°	2.7	7.5	7.5	7.5	7.5
82.5°	2.7	6.8	7.5	7.5	6.1
85°	2.7	6.1	7.5	7.5	5.4
87.5°	2.0	6.1	6.8	6.8	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	13.99	15.27	14.36	15.58	15.90
	3H	0.00	0.00	0.00	0.00	0.00	14.37	15.50	14.75	15.83	16.20
	4H	0.00	0.30	0.00	0.65	1.04	14.35	15.40	14.75	15.75	16.13
	6H	0.43	1.40	0.85	1.77	2.16	14.34	15.30	14.75	15.67	16.07
	8H	1.02	1.94	1.45	2.33	2.73	14.34	15.25	14.77	15.64	16.05
	12H	1.69	2.56	2.12	2.95	3.38	14.35	15.22	14.78	15.61	16.04
4H	2H	0.24	1.29	0.64	1.64	2.02	13.80	14.86	14.21	15.21	15.59
	3H	1.82	2.68	2.24	3.09	3.49	14.22	15.08	14.64	15.49	15.89
	4H	3.11	3.88	3.54	4.30	4.74	14.22	14.99	14.66	15.41	15.85
	6H	4.24	4.90	4.71	5.35	5.82	14.26	14.92	14.73	15.37	15.84
	8H	4.75	5.37	5.22	5.81	6.29	14.29	14.91	14.76	15.36	15.83
	12H	5.30	5.84	5.78	6.32	6.80	14.35	14.90	14.84	15.38	15.86
8H	4H	4.19	4.81	4.66	5.26	5.73	14.13	14.75	14.60	15.20	15.67
	6H	5.74	6.25	6.25	6.75	7.23	14.21	14.72	14.71	15.21	15.70
	8H	6.55	7.01	7.07	7.52	8.01	14.29	14.75	14.82	15.27	15.76
	12H	7.38	7.78	7.89	8.27	8.85	14.46	14.87	14.98	15.36	15.93
12H	4H	4.38	4.93	4.87	5.41	5.89	14.10	14.64	14.58	15.12	15.60
	6H	6.10	6.56	6.63	7.07	7.57	14.18	14.64	14.71	15.16	15.65
	8H	7.11	7.51	7.63	8.01	8.58	14.32	14.72	14.84	15.22	15.79