

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060868

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060868  
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: S124RDR-H575D830-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, 80 CRI LEDS  
Ballast/Driver: -

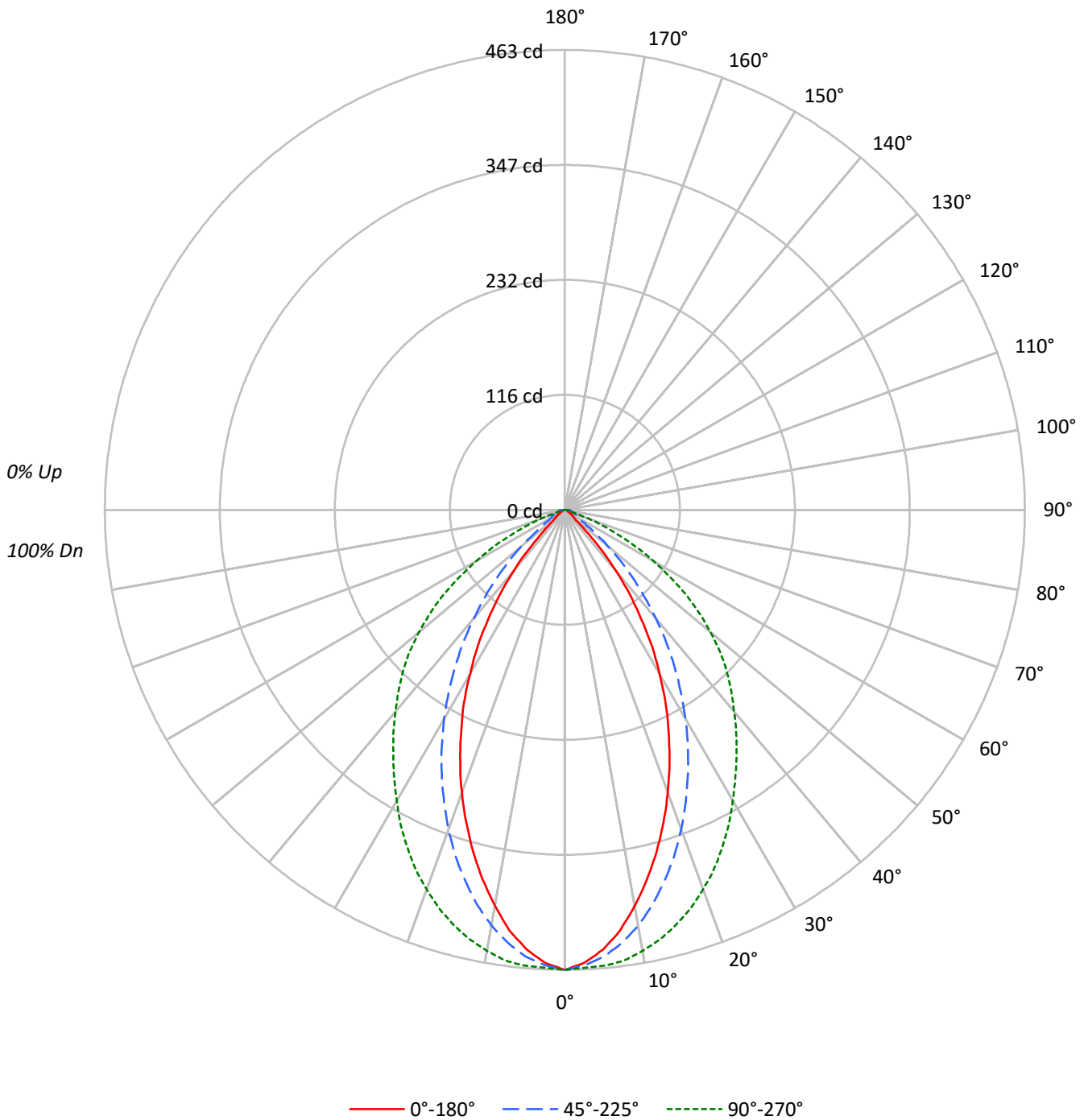
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 581.2 lumens  
Efficiency: N/A  
Efficacy: 33.4 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): 17.4  
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	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	103	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°	3988	3988	3988
5°	3839	3903	3982
10°	3540	3717	3942
15°	3177	3450	3855
20°	2777	3137	3727
25°	2349	2786	3561
30°	1897	2415	3361
35°	1412	2018	3166
40°	896	1600	2979
45°	358	1173	2808
50°	157	748	2564
55°	120	387	2238
60°	84	264	1774
65°	63	263	1212
70°	63	232	556
75°	83	246	223
80°	124	273	243
85°	247	484	366

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2808 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.4	7.3
10°-20°	109.3	18.8
20°-30°	138.1	23.8
30°-40°	126.8	21.8
40°-50°	86.5	14.9
50°-60°	46.9	8.1
60°-70°	19.9	3.4
70°-80°	6.9	1.2
80°-90°	4.4	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°	289.8	49.9
0°-40°	416.7	71.7
0°-60°	550.1	94.6
0°-90°	581.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	581.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	444	451	452	455	461	41
15°	356	368	387	415	432	99
25°	247	263	293	339	375	113
35°	134	152	192	252	301	83
45°	29	47	96	170	231	27
55°	8	9	26	94	149	7
65°	3	4	13	29	60	3
75°	2	7	7	7	7	3
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	463.1	463.1	463.1	463.1	463.1
2.5°	456.4	461.9	458.8	460.0	461.3
5°	444.1	450.8	451.5	455.1	460.7
7.5°	426.9	434.9	439.8	449.0	457.6
10°	404.8	414.7	425.1	439.8	450.8
12.5°	381.5	392.0	407.3	428.1	442.9
15°	356.4	368.0	387.0	414.7	432.4
17.5°	330.0	342.9	365.6	398.1	420.8
20°	303.0	317.1	342.3	379.1	406.7
22.5°	275.4	290.1	317.7	359.4	392.0
25°	247.2	263.1	293.2	338.6	374.8
27.5°	220.2	234.9	268.1	317.7	357.6
30°	190.8	207.3	242.9	296.3	338.0
32.5°	163.8	179.7	217.1	274.2	319.6
35°	134.3	152.1	192.0	252.1	301.2
37.5°	106.7	123.9	167.5	231.2	283.4
40°	79.7	97.5	142.3	210.4	265.0
42.5°	53.4	72.4	118.4	188.9	247.8
45°	29.4	47.2	96.3	170.5	230.6
47.5°	15.3	25.8	75.4	152.1	212.2
50°	11.7	14.1	55.8	131.9	191.4
52.5°	9.8	10.4	38.0	111.6	170.5
55°	8.0	8.6	25.8	93.8	149.1
57.5°	6.1	6.7	18.4	76.7	125.1
60°	4.9	5.5	15.3	58.9	103.0
62.5°	3.7	4.3	14.7	43.6	81.0
65°	3.1	3.7	12.9	29.4	59.5
67.5°	2.5	3.7	11.0	19.0	39.9
70°	2.5	4.9	9.2	12.3	22.1
72.5°	2.5	5.5	8.0	8.0	8.0
75°	2.5	6.7	7.4	6.7	6.7
77.5°	2.5	6.1	6.1	6.1	6.1
80°	2.5	5.5	5.5	5.5	4.9
82.5°	2.5	4.9	5.5	5.5	4.3
85°	2.5	4.9	4.9	4.9	3.7
87.5°	1.8	4.9	4.9	4.9	2.5
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	13.25	14.53	13.61	14.84	15.15
	3H	0.00	0.00	0.00	0.00	0.00	13.61	14.73	13.99	15.06	15.43
	4H	0.00	0.00	0.00	0.00	0.00	13.57	14.62	13.98	14.97	15.36
	6H	0.00	0.50	0.00	0.87	1.26	13.55	14.51	13.96	14.88	15.27
	8H	0.23	1.14	0.66	1.53	1.94	13.54	14.45	13.97	14.84	15.24
	12H	1.04	1.91	1.48	2.30	2.73	13.53	14.40	13.97	14.79	15.22
4H	2H	0.00	0.00	0.00	0.34	0.72	13.05	14.10	13.46	14.45	14.84
	3H	0.37	1.22	0.78	1.63	2.03	13.45	14.30	13.86	14.71	15.11
	4H	1.81	2.57	2.24	2.99	3.44	13.43	14.19	13.86	14.61	15.05
	6H	3.06	3.72	3.53	4.17	4.63	13.44	14.10	13.91	14.55	15.02
	8H	3.64	4.25	4.11	4.70	5.17	13.45	14.07	13.92	14.52	14.99
	12H	4.33	4.87	4.81	5.35	5.83	13.49	14.03	13.98	14.52	14.99
8H	4H	2.88	3.50	3.35	3.95	4.42	13.33	13.94	13.80	14.39	14.86
	6H	4.50	5.00	5.00	5.50	5.98	13.38	13.88	13.88	14.38	14.86
	8H	5.34	5.79	5.86	6.30	6.80	13.43	13.88	13.96	14.40	14.89
	12H	6.31	6.71	6.83	7.21	7.78	13.55	13.95	14.07	14.44	15.02
12H	4H	3.07	3.61	3.56	4.10	4.57	13.29	13.83	13.78	14.32	14.79
	6H	4.84	5.29	5.36	5.81	6.30	13.34	13.80	13.87	14.31	14.80
	8H	5.87	6.27	6.38	6.76	7.33	13.45	13.85	13.96	14.34	14.91