

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: P1061021

Luminaire Tested: S124RDR-H795D950-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061021  
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-H795D950-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: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

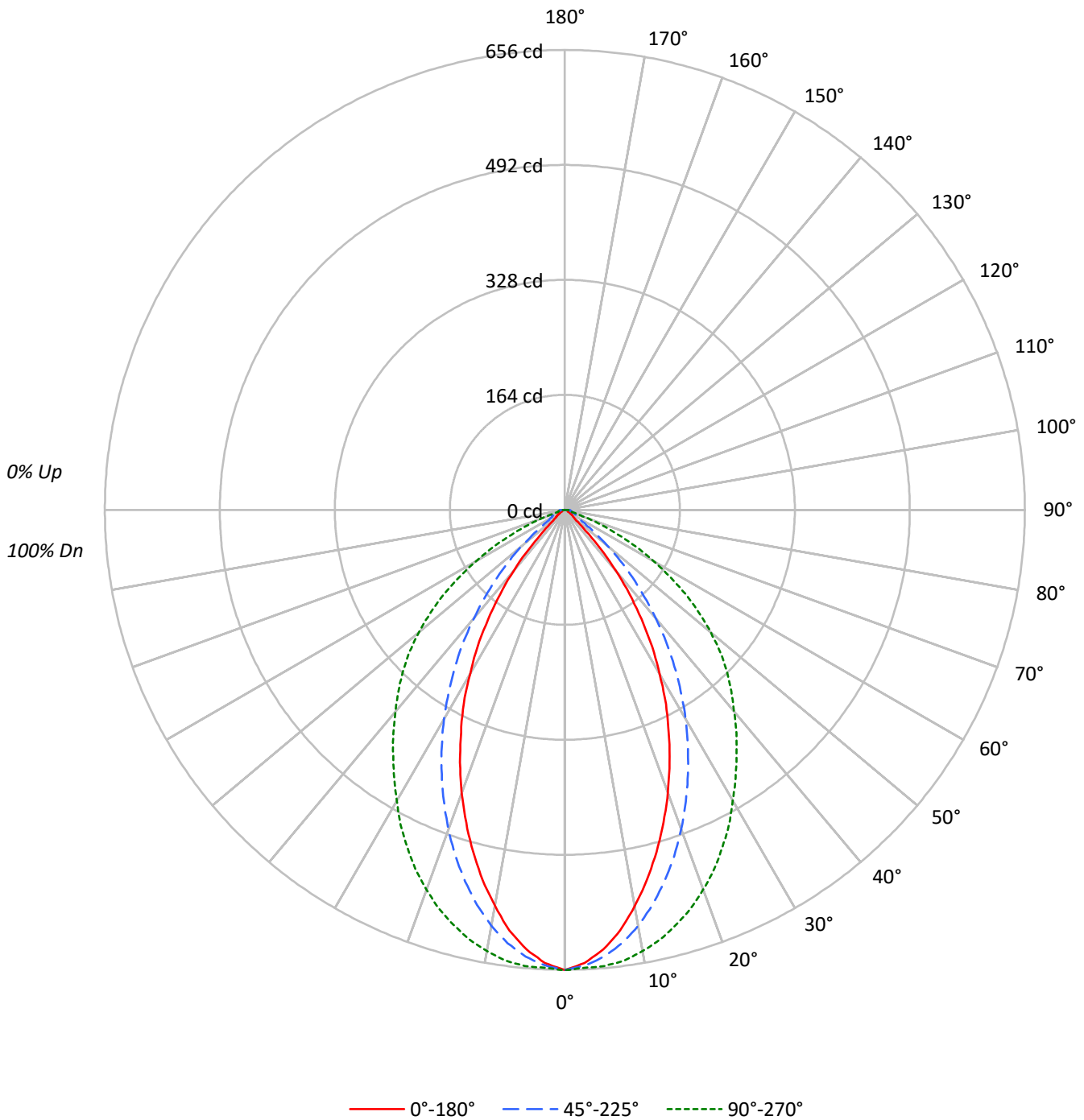
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 823.9 lumens  
Efficiency: N/A  
Efficacy: 35.1 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): 23.5  
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	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°	5653	5653	5653
5°	5441	5531	5645
10°	5018	5269	5588
15°	4504	4891	5465
20°	3936	4446	5283
25°	3329	3949	5048
30°	2689	3423	4764
35°	2002	2861	4488
40°	1270	2267	4222
45°	508	1662	3981
50°	221	1060	3634
55°	170	548	3172
60°	121	374	2516
65°	88	373	1718
70°	88	327	788
75°	116	346	319
80°	174	387	347
85°	346	692	514

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3981 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.1	7.3
10°-20°	155.0	18.8
20°-30°	195.8	23.8
30°-40°	179.8	21.8
40°-50°	122.6	14.9
50°-60°	66.5	8.1
60°-70°	28.2	3.4
70°-80°	9.8	1.2
80°-90°	6.2	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°	410.8	49.9
0°-40°	590.7	71.7
0°-60°	779.7	94.6
0°-90°	823.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	823.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	630	639	640	645	653	58
15°	505	522	549	588	613	141
25°	350	373	416	480	531	160
35°	190	216	272	357	427	118
45°	42	67	136	242	327	38
55°	11	12	36	133	211	10
65°	4	5	18	42	84	5
75°	4	10	10	10	10	4
85°	4	7	7	7	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	656.5	656.5	656.5	656.5	656.5
2.5°	646.9	654.7	650.4	652.1	653.9
5°	629.5	639.1	639.9	645.2	653.0
7.5°	605.2	616.5	623.4	636.5	648.6
10°	573.9	587.8	602.6	623.4	639.1
12.5°	540.8	555.6	577.3	606.9	627.8
15°	505.2	521.7	548.6	587.8	613.0
17.5°	467.8	486.0	518.2	564.3	596.5
20°	429.5	449.5	485.2	537.3	576.5
22.5°	390.4	411.3	450.4	509.5	555.6
25°	350.4	373.0	415.6	480.0	531.3
27.5°	312.1	333.0	380.0	450.4	506.9
30°	270.4	293.9	344.3	420.0	479.1
32.5°	232.2	254.8	307.8	388.7	453.0
35°	190.4	215.6	272.2	357.4	426.9
37.5°	151.3	175.6	237.4	327.8	401.7
40°	113.0	138.2	201.7	298.2	375.6
42.5°	75.6	102.6	167.8	267.8	351.3
45°	41.7	67.0	136.5	241.7	326.9
47.5°	21.7	36.5	106.9	215.6	300.8
50°	16.5	20.0	79.1	186.9	271.3
52.5°	13.9	14.8	53.9	158.2	241.7
55°	11.3	12.2	36.5	133.0	211.3
57.5°	8.7	9.6	26.1	108.7	177.4
60°	7.0	7.8	21.7	83.5	146.1
62.5°	5.2	6.1	20.9	61.7	114.8
65°	4.3	5.2	18.3	41.7	84.3
67.5°	3.5	5.2	15.7	27.0	56.5
70°	3.5	7.0	13.0	17.4	31.3
72.5°	3.5	7.8	11.3	11.3	11.3
75°	3.5	9.6	10.4	9.6	9.6
77.5°	3.5	8.7	8.7	8.7	8.7
80°	3.5	7.8	7.8	7.8	7.0
82.5°	3.5	7.0	7.8	7.8	6.1
85°	3.5	7.0	7.0	7.0	5.2
87.5°	2.6	7.0	7.0	7.0	3.5
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	14.46	15.74	14.83	16.05	16.36
	3H	0.00	0.00	0.00	0.00	0.00	14.82	15.94	15.20	16.28	16.64
	4H	0.00	0.43	0.00	0.78	1.17	14.78	15.83	15.19	16.18	16.57
	6H	0.75	1.71	1.16	2.08	2.48	14.76	15.72	15.17	16.09	16.49
	8H	1.43	2.34	1.86	2.73	3.14	14.75	15.66	15.18	16.05	16.46
	12H	2.24	3.11	2.67	3.49	3.92	14.75	15.62	15.18	16.00	16.43
4H	2H	0.18	1.22	0.58	1.58	1.96	14.26	15.31	14.67	15.66	16.05
	3H	1.59	2.45	2.01	2.85	3.26	14.66	15.51	15.07	15.92	16.32
	4H	3.05	3.81	3.48	4.23	4.67	14.64	15.40	15.07	15.82	16.27
	6H	4.29	4.95	4.75	5.39	5.86	14.66	15.32	15.12	15.76	16.23
	8H	4.86	5.48	5.33	5.92	6.40	14.67	15.28	15.14	15.73	16.20
	12H	5.54	6.08	6.03	6.57	7.04	14.70	15.25	15.19	15.73	16.21
8H	4H	4.12	4.73	4.59	5.18	5.65	14.54	15.15	15.01	15.60	16.07
	6H	5.72	6.22	6.23	6.72	7.20	14.59	15.09	15.09	15.59	16.07
	8H	6.56	7.01	7.08	7.53	8.02	14.65	15.10	15.17	15.61	16.11
	12H	7.54	7.93	8.05	8.43	9.00	14.76	15.16	15.28	15.66	16.23
12H	4H	4.30	4.84	4.79	5.33	5.80	14.50	15.04	14.99	15.53	16.00
	6H	6.07	6.52	6.59	7.03	7.53	14.56	15.01	15.08	15.53	16.02
	8H	7.09	7.49	7.61	7.99	8.56	14.66	15.06	15.18	15.56	16.13