

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: P1061022

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061022  
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: S124RDR-H795D950-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

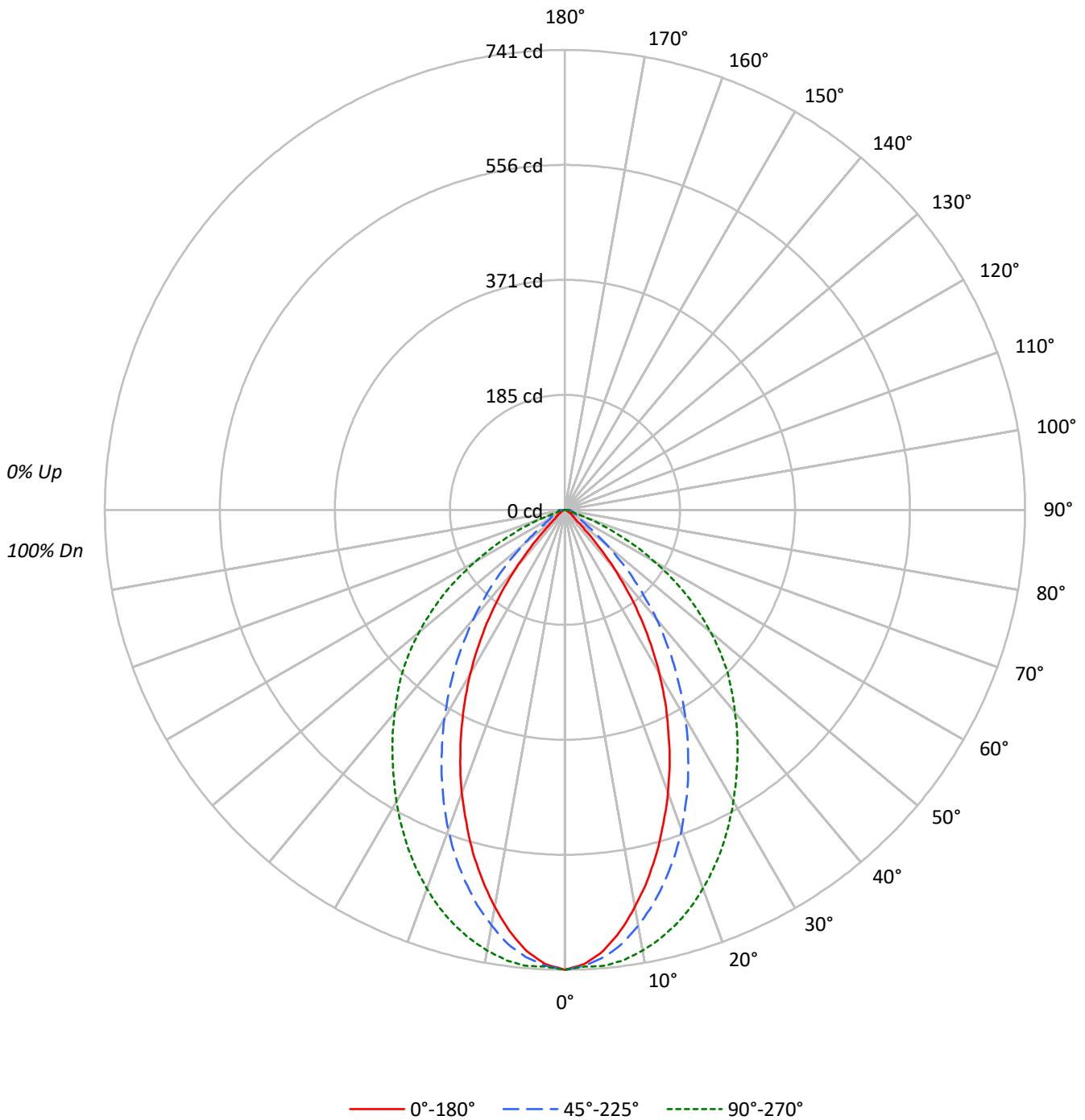
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 933.9 lumens  
Efficiency: N/A  
Efficacy: 39.7 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): 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	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°	6381	6381	6381
5°	6164	6255	6375
10°	5680	5947	6304
15°	5101	5528	6164
20°	4447	5029	5953
25°	3751	4462	5693
30°	3027	3857	5396
35°	2240	3227	5092
40°	1388	2571	4790
45°	550	1874	4512
50°	245	1176	4101
55°	195	614	3591
60°	134	465	2861
65°	88	460	1966
70°	88	415	919
75°	116	406	406
80°	174	476	476
85°	346	948	692

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4512 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.0	7.3
10°-20°	175.4	18.8
20°-30°	221.4	23.7
30°-40°	203.2	21.8
40°-50°	138.4	14.8
50°-60°	75.4	8.1
60°-70°	32.6	3.5
70°-80°	11.9	1.3
80°-90°	7.7	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°	464.8	49.8
0°-40°	668.0	71.5
0°-60°	881.7	94.4
0°-90°	933.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	933.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	713	723	724	731	738	66
15°	572	592	620	664	691	159
25°	395	423	470	544	599	180
35°	213	244	307	404	484	132
45°	45	76	154	273	370	42
55°	13	14	41	150	239	12
65°	4	6	23	47	96	5
75°	4	11	12	12	12	4
85°	4	8	10	10	7	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	741.0	741.0	741.0	741.0	741.0
2.5°	732.3	741.0	734.9	736.6	736.6
5°	713.1	722.7	723.6	731.4	737.5
7.5°	684.4	698.3	705.3	721.0	731.4
10°	649.6	666.2	680.1	707.0	721.0
12.5°	612.2	631.4	652.3	687.9	707.9
15°	572.2	592.2	620.1	664.4	691.4
17.5°	527.9	552.2	586.2	639.2	672.3
20°	485.3	509.6	548.8	608.8	649.6
22.5°	440.9	466.1	509.6	576.6	625.3
25°	394.8	422.7	469.6	544.4	599.2
27.5°	349.6	379.2	428.7	510.5	571.4
30°	304.4	334.0	387.9	475.7	542.7
32.5°	258.3	288.7	347.0	439.2	513.1
35°	213.1	244.4	307.0	404.4	484.4
37.5°	167.0	200.0	267.0	370.5	455.7
40°	123.5	156.5	228.7	336.6	426.1
42.5°	82.6	115.7	189.6	303.5	398.3
45°	45.2	75.7	153.9	273.1	370.5
47.5°	24.4	41.7	119.1	243.5	339.2
50°	18.3	22.6	87.8	212.2	306.1
52.5°	15.7	17.4	60.9	179.2	273.1
55°	13.0	13.9	40.9	150.5	239.2
57.5°	10.4	11.3	30.4	121.8	202.6
60°	7.8	9.6	27.0	93.9	166.1
62.5°	6.1	7.8	25.2	68.7	131.3
65°	4.3	6.1	22.6	47.0	96.5
67.5°	4.3	7.0	19.1	30.4	65.2
70°	3.5	9.6	16.5	20.0	36.5
72.5°	3.5	10.4	13.9	13.9	13.9
75°	3.5	11.3	12.2	12.2	12.2
77.5°	3.5	10.4	11.3	10.4	10.4
80°	3.5	9.6	9.6	9.6	9.6
82.5°	3.5	8.7	9.6	9.6	7.8
85°	3.5	7.8	9.6	9.6	7.0
87.5°	2.6	7.8	8.7	8.7	5.2
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	14.85	16.13	15.21	16.44	16.76
	3H	0.00	0.04	0.00	0.37	0.73	15.22	16.35	15.60	16.69	17.05
	4H	0.13	1.18	0.53	1.53	1.91	15.20	16.25	15.61	16.61	16.99
	6H	1.31	2.28	1.73	2.65	3.04	15.19	16.16	15.61	16.53	16.92
	8H	1.91	2.82	2.34	3.21	3.62	15.19	16.10	15.62	16.50	16.90
	12H	2.58	3.45	3.01	3.84	4.27	15.20	16.08	15.64	16.46	16.89
4H	2H	1.09	2.14	1.49	2.49	2.88	14.66	15.71	15.06	16.06	16.45
	3H	2.67	3.53	3.09	3.94	4.34	15.08	15.94	15.49	16.34	16.75
	4H	3.97	4.74	4.40	5.16	5.60	15.08	15.84	15.51	16.26	16.71
	6H	5.10	5.76	5.56	6.21	6.68	15.12	15.78	15.58	16.23	16.69
	8H	5.61	6.23	6.08	6.68	7.15	15.14	15.76	15.61	16.21	16.68
	12H	6.17	6.71	6.65	7.19	7.67	15.21	15.76	15.70	16.24	16.71
8H	4H	5.05	5.67	5.52	6.12	6.59	14.99	15.60	15.46	16.05	16.52
	6H	6.60	7.11	7.11	7.60	8.09	15.07	15.57	15.57	16.07	16.55
	8H	7.41	7.87	7.94	8.38	8.88	15.15	15.60	15.67	16.12	16.61
	12H	8.24	8.64	8.76	9.14	9.71	15.32	15.72	15.84	16.22	16.79
12H	4H	5.24	5.79	5.73	6.27	6.75	14.95	15.50	15.44	15.98	16.45
	6H	6.96	7.41	7.48	7.93	8.42	15.04	15.49	15.56	16.01	16.50
	8H	7.97	8.38	8.49	8.87	9.44	15.18	15.58	15.69	16.07	16.65