

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: P1060947

Luminaire Tested: S124RDR-H575D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060947  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D950-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

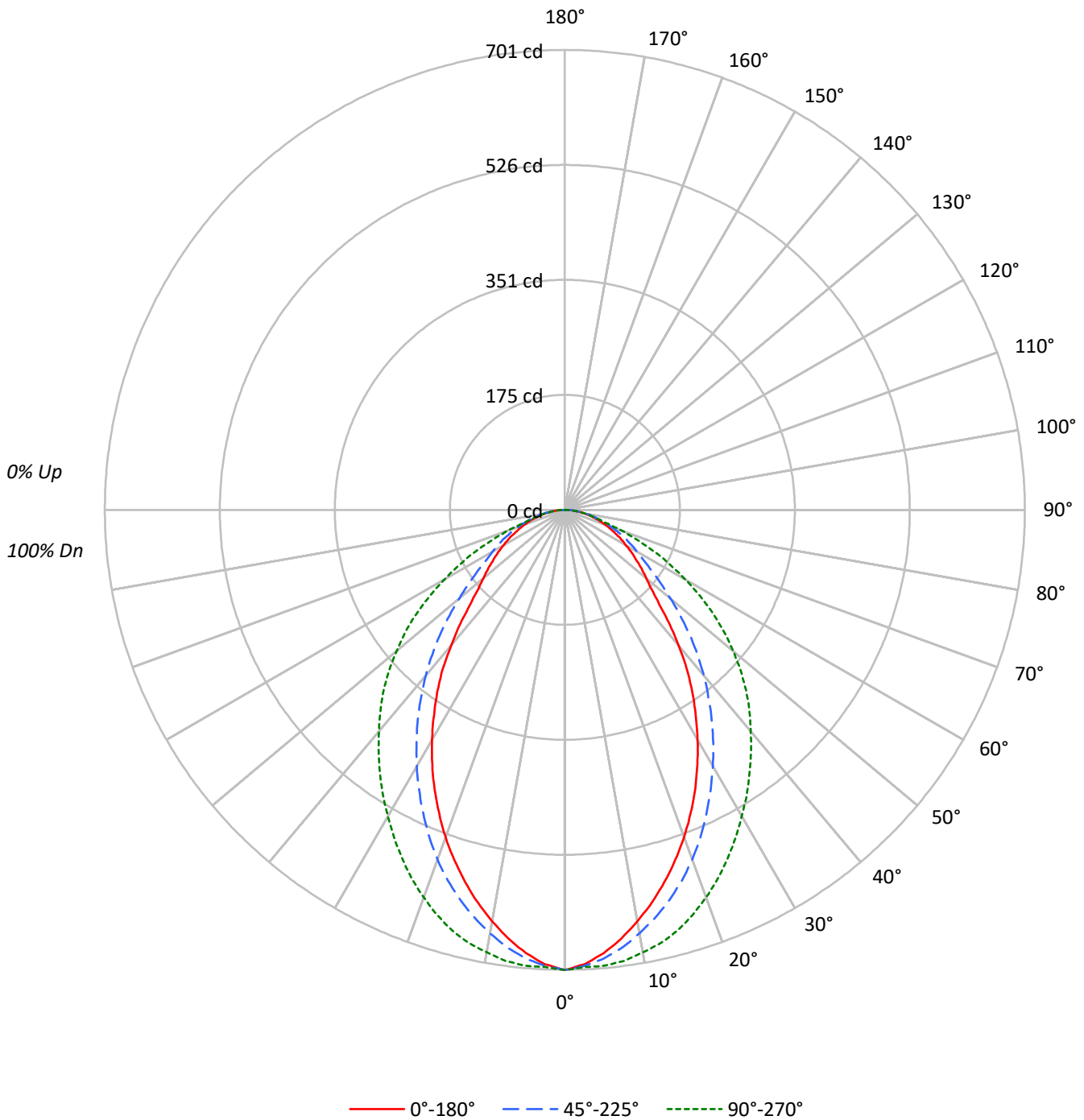
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1286.8 lumens  
Efficiency: N/A  
Efficacy: 74.0 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

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

	0°	45°	90°
0°	6039	6039	6039
5°	5863	5933	6029
10°	5567	5730	5990
15°	5234	5488	5919
20°	4868	5198	5761
25°	4464	4852	5573
30°	4023	4486	5362
35°	3562	4104	5160
40°	3027	3704	4953
45°	2479	3272	4762
50°	2170	2811	4481
55°	1994	2423	4147
60°	1850	2180	3655
65°	1732	2048	3060
70°	1624	1876	2296
75°	1527	1713	1674
80°	1413	1572	1413
85°	1284	1531	1225

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4762 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	5.0
10°-20°	174.4	13.6
20°-30°	238.4	18.5
30°-40°	250.5	19.5
40°-50°	217.4	16.9
50°-60°	164.0	12.7
60°-70°	106.3	8.3
70°-80°	54.6	4.2
80°-90°	16.5	1.3
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°	477.5	37.1
0°-40°	728.0	56.6
0°-60°	1109.4	86.2
0°-90°	1286.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1286.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	678	688	686	692	698	63
15°	587	601	616	644	664	165
25°	470	486	511	550	586	215
35°	339	358	390	442	491	211
45°	204	223	269	336	391	160
55°	133	136	161	229	276	120
65°	85	87	100	122	150	85
75°	46	52	52	52	50	49
85°	13	16	16	15	12	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	701.3	701.3	701.3	701.3	701.3
2.5°	693.2	701.9	695.7	696.9	697.5
5°	678.3	687.6	686.4	692.0	697.5
7.5°	659.1	670.2	672.7	683.9	693.2
10°	636.7	649.1	655.3	673.3	685.1
12.5°	613.1	625.6	636.7	659.7	676.4
15°	587.1	601.4	615.6	643.6	664.0
17.5°	559.8	574.7	592.7	623.1	647.3
20°	531.2	546.1	567.2	600.1	628.7
22.5°	500.8	517.6	539.9	575.3	608.8
25°	469.8	486.5	510.7	549.8	586.5
27.5°	437.5	454.9	481.0	524.4	563.5
30°	404.6	423.2	451.2	497.1	539.3
32.5°	371.1	391.0	420.8	469.8	515.7
35°	338.8	357.5	390.4	442.5	490.9
37.5°	305.3	323.9	359.3	415.8	466.1
40°	269.3	289.8	329.5	387.9	440.6
42.5°	235.8	256.3	299.1	361.2	416.4
45°	203.6	222.8	268.7	335.7	391.0
47.5°	178.7	192.4	238.3	310.9	363.7
50°	162.0	168.2	209.8	283.6	334.5
52.5°	147.1	152.0	183.7	256.3	306.0
55°	132.8	136.5	161.4	229.0	276.2
57.5°	120.4	122.3	141.5	201.7	243.9
60°	107.4	109.8	126.6	173.8	212.2
62.5°	96.8	98.1	113.6	147.1	180.6
65°	85.0	86.9	100.5	121.6	150.2
67.5°	74.5	77.6	86.9	99.3	118.5
70°	64.5	68.9	74.5	80.7	91.2
72.5°	55.2	60.2	63.3	65.8	63.9
75°	45.9	51.5	51.5	52.1	50.3
77.5°	37.2	42.2	41.6	41.0	38.5
80°	28.5	32.9	31.7	31.0	28.5
82.5°	21.1	24.2	23.0	22.3	19.2
85°	13.0	16.1	15.5	14.9	12.4
87.5°	6.2	9.3	8.7	8.1	5.6
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	12.75	14.24	13.12	14.55	14.87	16.49	17.98	16.85	18.29	18.60
	3H	14.42	15.75	14.80	16.08	16.44	17.61	18.95	17.99	19.27	19.64
	4H	15.09	16.33	15.49	16.68	17.06	17.91	19.16	18.31	19.51	19.89
	6H	15.59	16.75	16.00	17.11	17.50	18.11	19.26	18.52	19.63	20.02
	8H	15.77	16.86	16.19	17.25	17.66	18.16	19.26	18.59	19.65	20.05
	12H	15.89	16.94	16.32	17.32	17.75	18.20	19.25	18.63	19.63	20.06
4H	2H	13.54	14.79	13.94	15.14	15.52	16.65	17.90	17.05	18.25	18.63
	3H	15.42	16.45	15.83	16.85	17.25	17.98	19.02	18.40	19.42	19.82
	4H	16.22	17.15	16.65	17.57	18.01	18.40	19.33	18.83	19.75	20.19
	6H	16.86	17.67	17.32	18.11	18.58	18.72	19.53	19.18	19.98	20.44
	8H	17.08	17.84	17.55	18.29	18.75	18.82	19.57	19.28	20.02	20.49
	12H	17.25	17.92	17.73	18.40	18.87	18.89	19.56	19.37	20.04	20.51
8H	4H	16.57	17.32	17.03	17.77	18.24	18.53	19.29	19.00	19.74	20.20
	6H	17.36	17.98	17.85	18.47	18.95	18.95	19.58	19.45	20.07	20.55
	8H	17.67	18.24	18.19	18.75	19.23	19.11	19.67	19.62	20.18	20.67
	12H	17.94	18.43	18.45	18.93	19.49	19.25	19.75	19.76	20.24	20.80
12H	4H	16.60	17.27	17.08	17.75	18.22	18.54	19.21	19.02	19.69	20.17
	6H	17.42	17.98	17.93	18.49	18.98	18.97	19.54	19.49	20.05	20.54
	8H	17.80	18.30	18.31	18.79	19.36	19.18	19.68	19.69	20.17	20.74