

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: P1060830

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060830  
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-H350D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

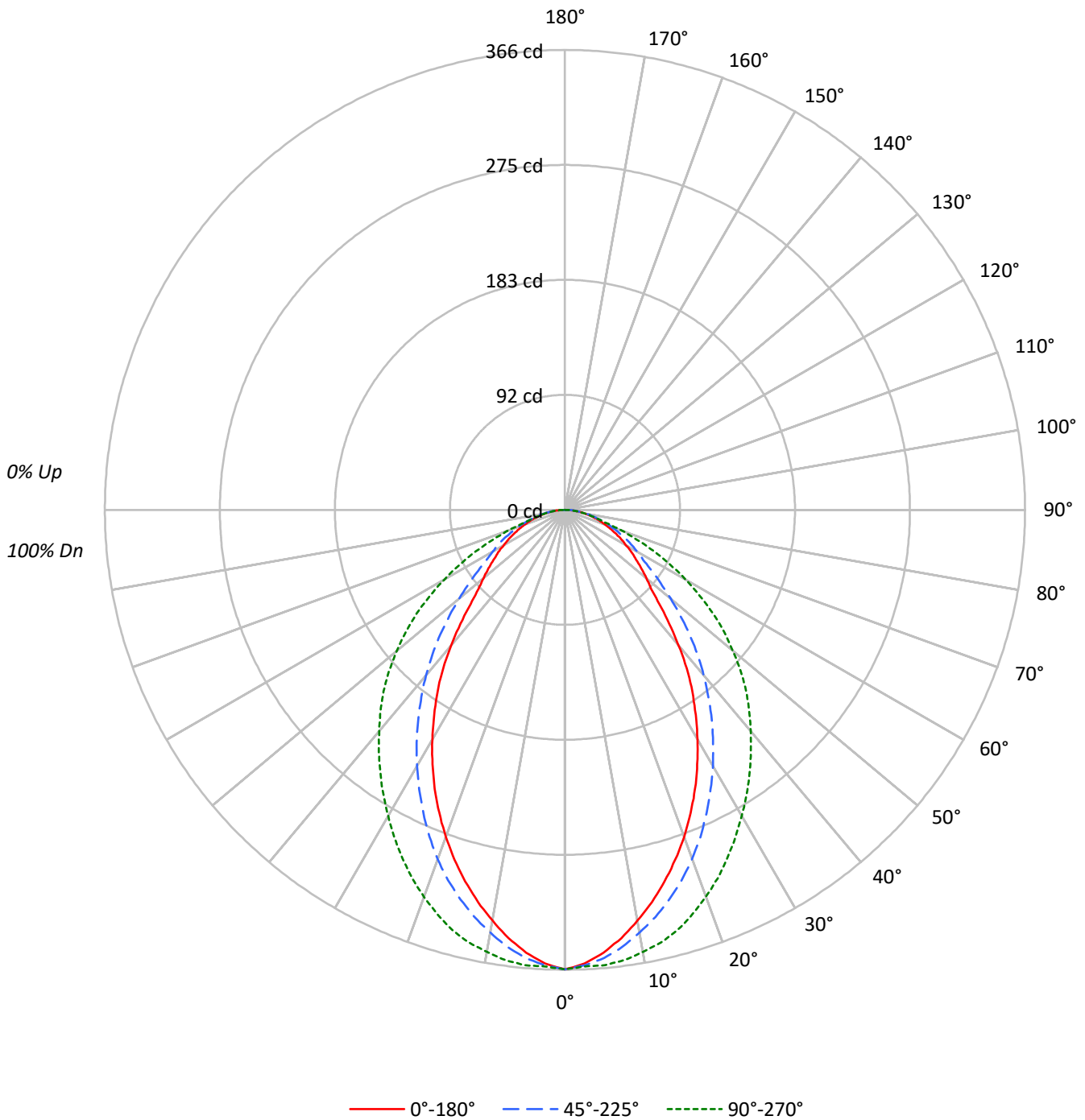
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 671.0 lumens  
Efficiency: N/A  
Efficacy: 57.3 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): 11.7  
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										
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	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°	3149	3149	3149
5°	3057	3094	3144
10°	2903	2988	3123
15°	2729	2862	3086
20°	2538	2711	3004
25°	2328	2530	2906
30°	2098	2340	2796
35°	1858	2139	2691
40°	1578	1931	2583
45°	1292	1706	2483
50°	1132	1466	2336
55°	1039	1263	2162
60°	964	1137	1907
65°	903	1068	1595
70°	848	977	1198
75°	795	895	872
80°	739	818	739
85°	672	800	642

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2483 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.8	5.0
10°-20°	90.9	13.6
20°-30°	124.3	18.5
30°-40°	130.6	19.5
40°-50°	113.4	16.9
50°-60°	85.5	12.7
60°-70°	55.4	8.3
70°-80°	28.5	4.2
80°-90°	8.6	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°	249.0	37.1
0°-40°	379.6	56.6
0°-60°	578.5	86.2
0°-90°	671.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	671.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	366	366	366	366	366	
5°	354	358	358	361	364	33
15°	306	314	321	336	346	86
25°	245	254	266	287	306	112
35°	177	186	204	231	256	110
45°	106	116	140	175	204	84
55°	69	71	84	119	144	62
65°	44	45	52	63	78	44
75°	24	27	27	27	26	25
85°	7	8	8	8	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	365.7	365.7	365.7	365.7	365.7
2.5°	361.5	366.0	362.8	363.4	363.7
5°	353.7	358.5	357.9	360.8	363.7
7.5°	343.7	349.5	350.8	356.6	361.5
10°	332.0	338.5	341.7	351.1	357.2
12.5°	319.7	326.2	332.0	344.0	352.7
15°	306.1	313.6	321.0	335.6	346.2
17.5°	291.9	299.6	309.0	324.9	337.5
20°	277.0	284.8	295.8	312.9	327.8
22.5°	261.1	269.9	281.5	300.0	317.4
25°	245.0	253.7	266.3	286.7	305.8
27.5°	228.1	237.2	250.8	273.4	293.8
30°	211.0	220.7	235.3	259.2	281.2
32.5°	193.5	203.9	219.4	245.0	268.9
35°	176.7	186.4	203.5	230.7	256.0
37.5°	159.2	168.9	187.4	216.8	243.0
40°	140.4	151.1	171.8	202.2	229.8
42.5°	123.0	133.6	156.0	188.3	217.1
45°	106.1	116.2	140.1	175.1	203.9
47.5°	93.2	100.3	124.3	162.1	189.6
50°	84.5	87.7	109.4	147.9	174.4
52.5°	76.7	79.3	95.8	133.6	159.5
55°	69.2	71.2	84.1	119.4	144.0
57.5°	62.8	63.7	73.8	105.2	127.2
60°	56.0	57.3	66.0	90.6	110.7
62.5°	50.5	51.1	59.2	76.7	94.2
65°	44.3	45.3	52.4	63.4	78.3
67.5°	38.8	40.4	45.3	51.8	61.8
70°	33.7	35.9	38.8	42.1	47.6
72.5°	28.8	31.4	33.0	34.3	33.3
75°	23.9	26.9	26.9	27.2	26.2
77.5°	19.4	22.0	21.7	21.4	20.1
80°	14.9	17.2	16.5	16.2	14.9
82.5°	11.0	12.6	12.0	11.6	10.0
85°	6.8	8.4	8.1	7.8	6.5
87.5°	3.2	4.9	4.5	4.2	2.9
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	10.48	11.97	10.85	12.28	12.60	14.23	15.71	14.59	16.03	16.34
	3H	12.15	13.48	12.53	13.81	14.17	15.35	16.69	15.73	17.01	17.38
	4H	12.82	14.07	13.22	14.42	14.80	15.65	16.90	16.05	17.25	17.63
	6H	13.33	14.48	13.74	14.85	15.24	15.85	17.00	16.26	17.37	17.76
	8H	13.50	14.60	13.93	14.99	15.39	15.90	17.00	16.33	17.39	17.79
	12H	13.62	14.67	14.05	15.05	15.48	15.94	16.99	16.37	17.37	17.80
4H	2H	11.28	12.53	11.68	12.87	13.25	14.39	15.64	14.79	15.99	16.37
	3H	13.15	14.18	13.56	14.58	14.99	15.72	16.76	16.13	17.16	17.56
	4H	13.95	14.89	14.39	15.30	15.74	16.14	17.07	16.57	17.49	17.93
	6H	14.60	15.41	15.06	15.85	16.31	16.46	17.27	16.92	17.72	18.18
	8H	14.82	15.58	15.29	16.02	16.49	16.56	17.31	17.02	17.76	18.23
	12H	14.99	15.66	15.47	16.14	16.61	16.63	17.30	17.11	17.78	18.25
8H	4H	14.30	15.06	14.77	15.50	15.97	16.27	17.03	16.74	17.48	17.94
	6H	15.09	15.72	15.59	16.21	16.69	16.69	17.32	17.19	17.81	18.29
	8H	15.41	15.97	15.93	16.48	16.97	16.85	17.41	17.36	17.92	18.41
	12H	15.68	16.17	16.19	16.66	17.23	16.99	17.49	17.50	17.98	18.54
12H	4H	14.33	15.01	14.82	15.49	15.96	16.28	16.95	16.76	17.43	17.90
	6H	15.16	15.72	15.67	16.23	16.72	16.72	17.28	17.23	17.79	18.28
	8H	15.54	16.04	16.05	16.53	17.10	16.92	17.42	17.43	17.91	18.48