

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: P1060848

Luminaire Tested: S124RDR-H350D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060848  
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-H350D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

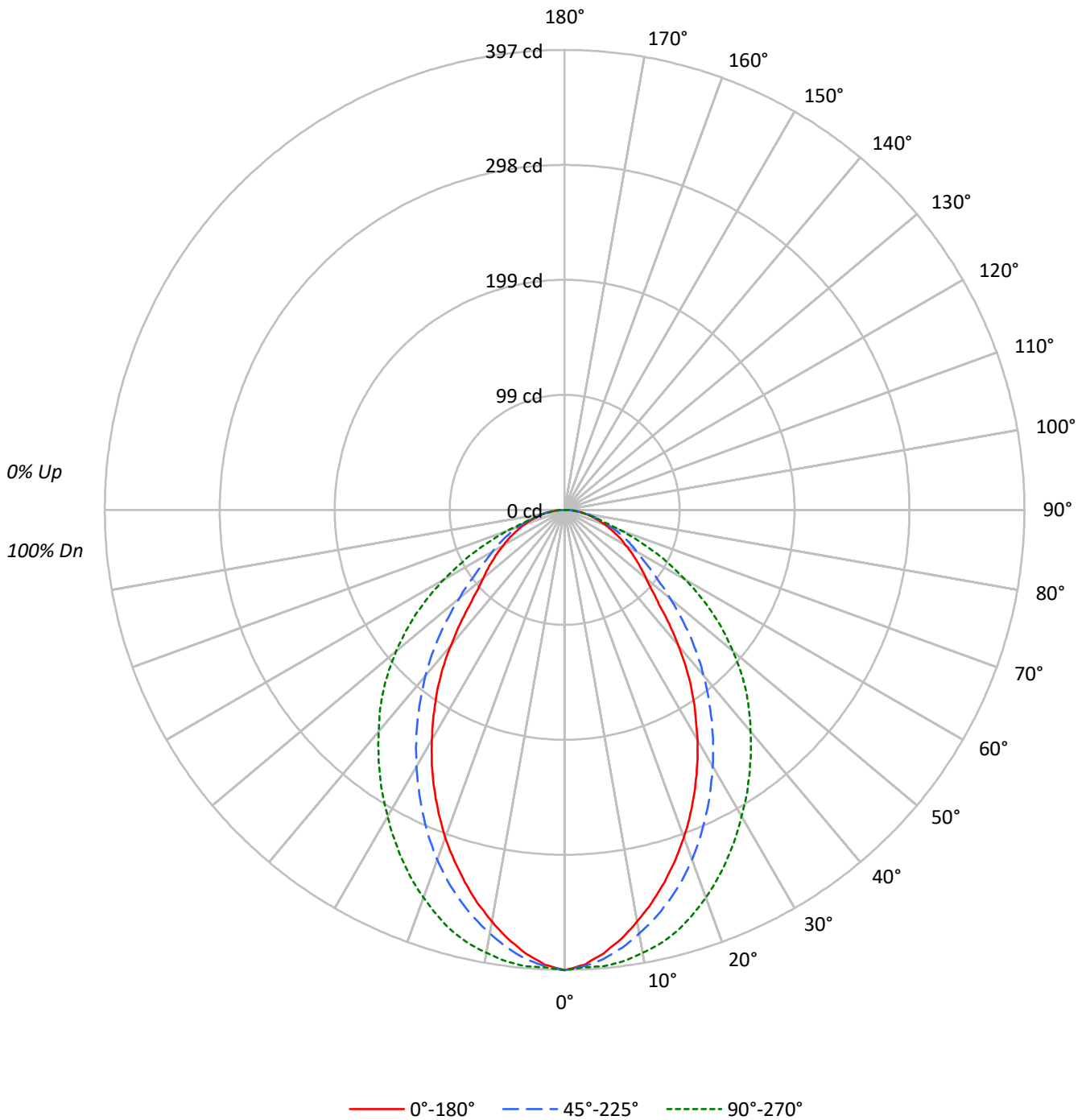
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 729.3 lumens  
Efficiency: N/A  
Efficacy: 62.3 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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65														
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40														
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31														

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

	0°	45°	90°
0°	3422	3422	3422
5°	3323	3363	3417
10°	3156	3248	3395
15°	2966	3110	3355
20°	2759	2946	3265
25°	2529	2751	3158
30°	2280	2542	3039
35°	2018	2325	2925
40°	1715	2100	2807
45°	1405	1855	2699
50°	1230	1593	2540
55°	1130	1372	2350
60°	1047	1235	2072
65°	982	1161	1734
70°	921	1062	1302
75°	865	972	948
80°	803	888	803
85°	731	869	692

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2699 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	5.0
10°-20°	98.8	13.6
20°-30°	135.1	18.5
30°-40°	142.0	19.5
40°-50°	123.2	16.9
50°-60°	92.9	12.7
60°-70°	60.2	8.3
70°-80°	30.9	4.2
80°-90°	9.4	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°	270.6	37.1
0°-40°	412.6	56.6
0°-60°	628.7	86.2
0°-90°	729.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	729.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	384	390	389	392	395	36
15°	333	341	349	365	376	93
25°	266	276	290	312	332	122
35°	192	203	221	251	278	119
45°	115	126	152	190	222	91
55°	75	77	91	130	156	68
65°	48	49	57	69	85	48
75°	26	29	29	30	28	28
85°	7	9	9	8	7	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	397.4	397.4	397.4	397.4	397.4
2.5°	392.9	397.8	394.3	395.0	395.3
5°	384.4	389.7	389.0	392.2	395.3
7.5°	373.5	379.8	381.2	387.6	392.9
10°	360.9	367.9	371.4	381.6	388.3
12.5°	347.5	354.5	360.9	373.9	383.4
15°	332.7	340.8	348.9	364.7	376.3
17.5°	317.2	325.7	335.9	353.1	366.8
20°	301.1	309.5	321.5	340.1	356.3
22.5°	283.8	293.3	306.0	326.0	345.0
25°	266.2	275.7	289.5	311.6	332.4
27.5°	248.0	257.8	272.6	297.2	319.3
30°	229.3	239.9	255.7	281.7	305.6
32.5°	210.3	221.6	238.5	266.2	292.3
35°	192.0	202.6	221.2	250.8	278.2
37.5°	173.0	183.6	203.6	235.6	264.1
40°	152.6	164.2	186.8	219.8	249.7
42.5°	133.6	145.3	169.5	204.7	236.0
45°	115.4	126.3	152.3	190.3	221.6
47.5°	101.3	109.0	135.1	176.2	206.1
50°	91.8	95.3	118.9	160.7	189.6
52.5°	83.4	86.2	104.1	145.3	173.4
55°	75.3	77.4	91.4	129.8	156.5
57.5°	68.2	69.3	80.2	114.3	138.2
60°	60.8	62.3	71.7	98.5	120.3
62.5°	54.9	55.6	64.4	83.4	102.3
65°	48.2	49.2	57.0	68.9	85.1
67.5°	42.2	44.0	49.2	56.3	67.2
70°	36.6	39.0	42.2	45.7	51.7
72.5°	31.3	34.1	35.9	37.3	36.2
75°	26.0	29.2	29.2	29.5	28.5
77.5°	21.1	23.9	23.6	23.2	21.8
80°	16.2	18.6	17.9	17.6	16.2
82.5°	12.0	13.7	13.0	12.7	10.9
85°	7.4	9.1	8.8	8.4	7.0
87.5°	3.5	5.3	4.9	4.6	3.2
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	10.78	12.26	11.14	12.58	12.89	14.52	16.00	14.88	16.32	16.63
	3H	12.45	13.78	12.82	14.11	14.47	15.64	16.97	16.02	17.30	17.66
	4H	13.11	14.36	13.51	14.71	15.09	15.94	17.19	16.34	17.54	17.91
	6H	13.62	14.77	14.03	15.14	15.53	16.14	17.29	16.55	17.66	18.05
	8H	13.79	14.89	14.22	15.28	15.68	16.19	17.29	16.62	17.68	18.08
	12H	13.92	14.97	14.35	15.35	15.78	16.22	17.28	16.66	17.66	18.09
4H	2H	11.57	12.82	11.97	13.17	13.55	14.68	15.93	15.08	16.28	16.66
	3H	13.44	14.48	13.85	14.88	15.28	16.01	17.05	16.42	17.45	17.85
	4H	14.25	15.18	14.68	15.59	16.03	16.43	17.36	16.86	17.78	18.22
	6H	14.89	15.70	15.35	16.14	16.60	16.75	17.56	17.21	18.00	18.46
	8H	15.11	15.87	15.58	16.31	16.78	16.84	17.60	17.31	18.05	18.51
	12H	15.28	15.95	15.76	16.43	16.90	16.92	17.59	17.40	18.07	18.54
8H	4H	14.59	15.35	15.06	15.80	16.26	16.56	17.32	17.03	17.76	18.23
	6H	15.38	16.01	15.88	16.50	16.98	16.98	17.61	17.48	18.10	18.58
	8H	15.70	16.26	16.22	16.77	17.26	17.14	17.70	17.65	18.21	18.70
	12H	15.96	16.46	16.47	16.95	17.52	17.28	17.77	17.79	18.27	18.83
12H	4H	14.62	15.30	15.11	15.78	16.25	16.57	17.24	17.05	17.72	18.19
	6H	15.44	16.01	15.96	16.52	17.00	17.00	17.56	17.52	18.07	18.56
	8H	15.83	16.33	16.34	16.82	17.38	17.21	17.71	17.72	18.20	18.77