

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: P1060838

Luminaire Tested: S124RDR-H350D930-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D930-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

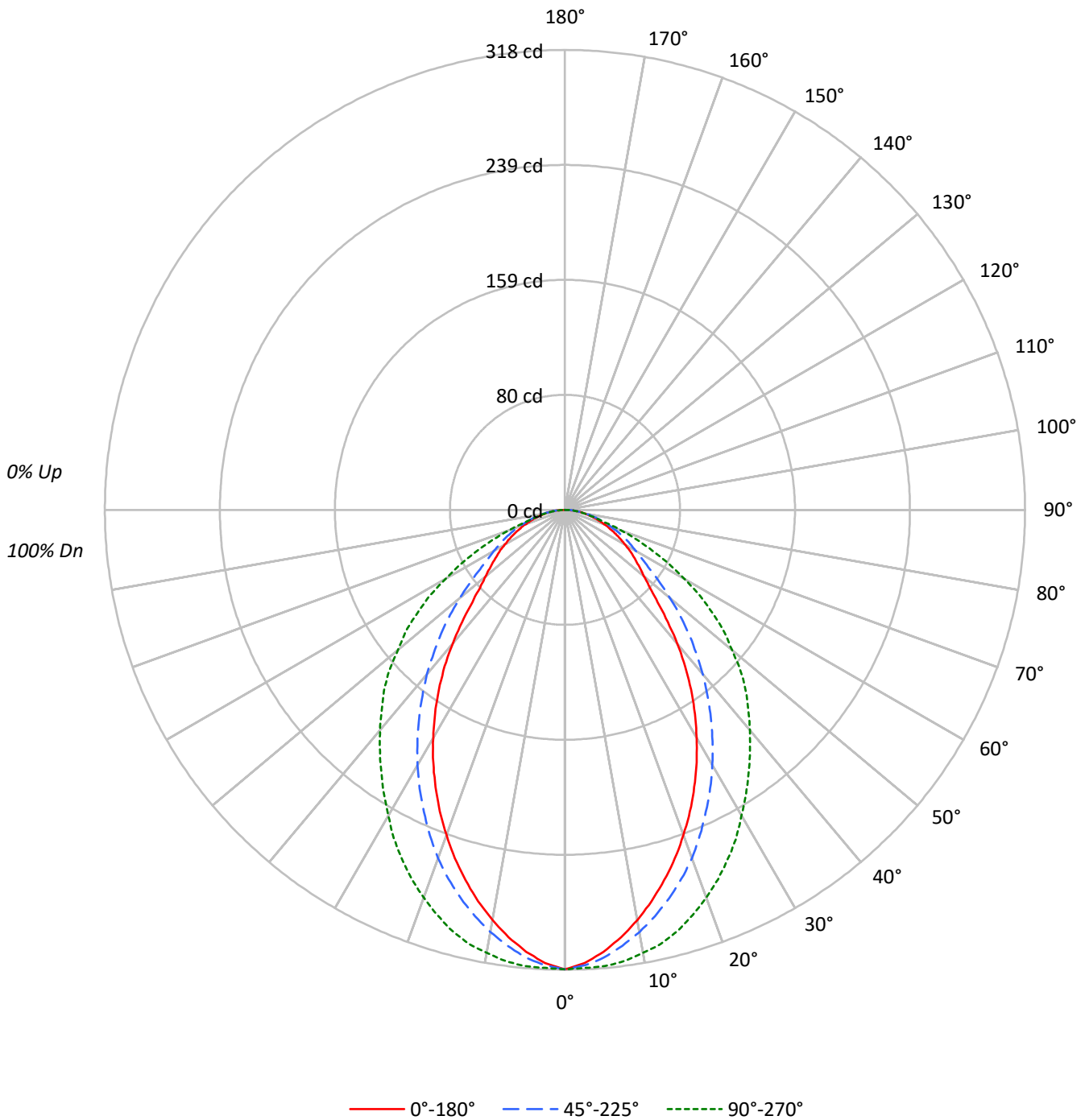
Lumens per Lamp: N/A
Luminaire Lumens: 578.4 lumens
Efficiency: N/A
Efficacy: 49.4 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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									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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																																				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																																				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																																				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																																				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																																				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																																				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																																				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																																				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2736	2736	2736
5°	2651	2686	2738
10°	2518	2592	2719
15°	2363	2479	2687
20°	2194	2350	2615
25°	2010	2189	2531
30°	1811	2026	2427
35°	1596	1848	2327
40°	1359	1666	2235
45°	1103	1472	2153
50°	955	1267	2016
55°	884	1075	1869
60°	827	970	1640
65°	774	909	1363
70°	720	838	1032
75°	685	775	742
80°	645	709	630
85°	593	662	494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2153 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	5.1
10°-20°	78.8	13.6
20°-30°	107.6	18.6
30°-40°	112.8	19.5
40°-50°	97.6	16.9
50°-60°	73.4	12.7
60°-70°	47.3	8.2
70°-80°	24.2	4.2
80°-90°	7.3	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°	215.8	37.3
0°-40°	328.6	56.8
0°-60°	499.6	86.4
0°-90°	578.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	578.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	307	311	311	313	317	29
15°	265	272	278	291	301	74
25°	212	219	230	248	266	97
35°	152	160	176	199	221	95
45°	91	100	121	150	177	71
55°	59	61	72	102	124	53
65°	38	39	45	54	67	38
75°	21	23	23	23	22	22
85°	6	7	7	6	5	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	317.7	317.7	317.7	317.7	317.7
2.5°	313.7	317.7	315.3	316.0	317.0
5°	306.7	311.4	310.7	313.0	316.7
7.5°	298.0	303.0	304.0	309.4	314.7
10°	288.0	293.7	296.4	304.4	311.0
12.5°	277.1	283.0	287.7	297.7	307.4
15°	265.1	271.7	278.1	290.7	301.4
17.5°	252.7	259.4	267.7	281.7	293.7
20°	239.4	246.8	256.4	271.1	285.4
22.5°	225.8	233.4	243.8	259.7	276.4
25°	211.5	219.4	230.4	248.4	266.4
27.5°	197.1	205.1	217.4	236.4	256.1
30°	182.1	190.5	203.8	224.4	244.1
32.5°	167.2	176.2	189.8	211.8	232.8
35°	151.8	160.5	175.8	199.1	221.4
37.5°	136.5	145.5	161.8	186.8	210.1
40°	120.9	130.2	148.2	174.5	198.8
42.5°	105.2	115.2	134.2	161.8	187.5
45°	90.6	99.9	120.9	150.5	176.8
47.5°	79.6	85.9	107.6	139.5	164.8
50°	71.3	74.6	94.6	127.5	150.5
52.5°	64.9	67.3	82.6	114.6	138.9
55°	58.9	60.9	71.6	102.2	124.5
57.5°	53.6	54.6	63.3	90.2	110.9
60°	48.0	49.0	56.3	77.3	95.2
62.5°	43.0	43.6	50.6	64.9	80.9
65°	38.0	38.6	44.6	53.9	66.9
67.5°	33.3	34.3	39.0	44.0	53.3
70°	28.6	30.6	33.3	35.6	41.0
72.5°	24.6	26.6	28.0	28.6	29.0
75°	20.6	23.0	23.3	23.0	22.3
77.5°	16.6	18.6	18.6	18.0	17.3
80°	13.0	14.7	14.3	13.7	12.7
82.5°	9.7	10.7	10.3	9.7	8.7
85°	6.0	7.0	6.7	6.3	5.0
87.5°	3.0	4.0	3.7	3.3	2.0
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	9.93	11.41	10.29	11.72	12.04	13.70	15.18	14.07	15.50	15.81
	3H	11.58	12.91	11.96	13.24	13.60	14.82	16.14	15.19	16.47	16.84
	4H	12.25	13.50	12.65	13.85	14.23	15.11	16.35	15.51	16.70	17.08
	6H	12.76	13.91	13.18	14.28	14.67	15.30	16.45	15.72	16.82	17.21
	8H	12.95	14.04	13.37	14.43	14.83	15.36	16.45	15.78	16.84	17.24
	12H	13.07	14.12	13.50	14.50	14.93	15.38	16.43	15.82	16.81	17.24
4H	2H	10.71	11.96	11.11	12.30	12.68	13.86	15.10	14.26	15.45	15.83
	3H	12.57	13.60	12.98	14.00	14.41	15.17	16.20	15.58	16.61	17.01
	4H	13.38	14.31	13.81	14.72	15.16	15.58	16.51	16.01	16.93	17.37
	6H	14.03	14.83	14.48	15.28	15.74	15.90	16.70	16.36	17.15	17.61
	8H	14.26	15.01	14.72	15.46	15.92	15.99	16.75	16.46	17.19	17.66
	12H	14.43	15.10	14.91	15.58	16.05	16.05	16.73	16.54	17.21	17.68
8H	4H	13.73	14.48	14.19	14.93	15.40	15.71	16.47	16.18	16.91	17.38
	6H	14.52	15.14	15.02	15.64	16.11	16.13	16.75	16.62	17.24	17.72
	8H	14.85	15.40	15.36	15.92	16.40	16.28	16.84	16.79	17.35	17.84
	12H	15.11	15.61	15.62	16.10	16.66	16.40	16.90	16.91	17.39	17.96
12H	4H	13.76	14.43	14.24	14.91	15.38	15.72	16.39	16.20	16.87	17.34
	6H	14.58	15.14	15.10	15.65	16.14	16.15	16.71	16.66	17.22	17.71
	8H	14.97	15.47	15.48	15.96	16.53	16.35	16.85	16.86	17.34	17.90