

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: P1060865

Luminaire Tested: S124RDR-H350D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060865
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-H350D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

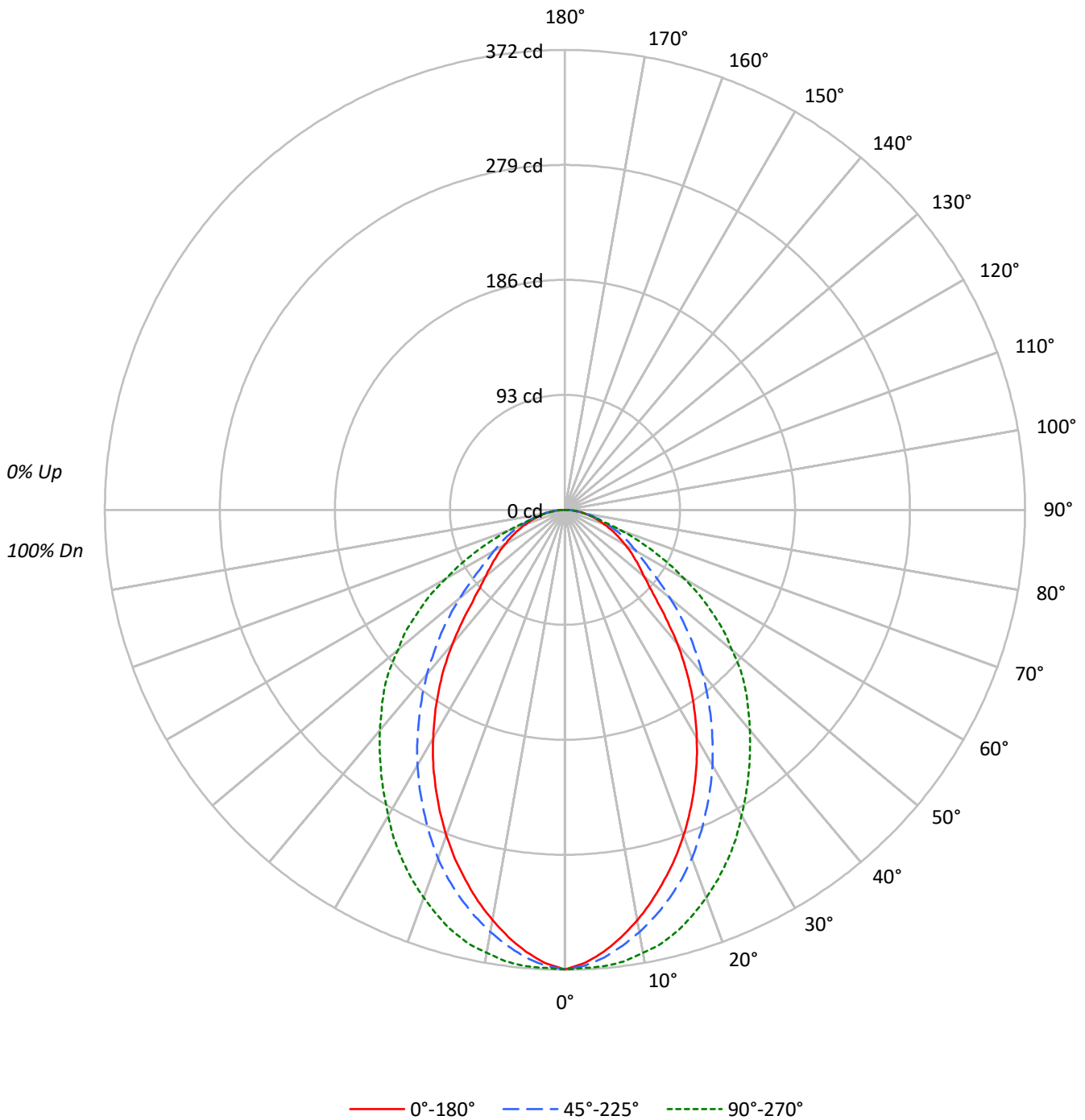
Lumens per Lamp: N/A
Luminaire Lumens: 676.7 lumens
Efficiency: N/A
Efficacy: 57.8 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	3201	3201	3201
5°	3102	3142	3203
10°	2947	3032	3182
15°	2765	2901	3143
20°	2568	2749	3060
25°	2351	2562	2962
30°	2119	2371	2840
35°	1868	2162	2724
40°	1589	1949	2615
45°	1291	1722	2520
50°	1117	1483	2359
55°	1036	1258	2187
60°	966	1135	1919
65°	905	1064	1595
70°	843	982	1206
75°	805	908	868
80°	754	833	734
85°	692	771	573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2520 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.3	5.1
10°-20°	92.2	13.6
20°-30°	126.0	18.6
30°-40°	132.0	19.5
40°-50°	114.2	16.9
50°-60°	85.8	12.7
60°-70°	55.3	8.2
70°-80°	28.4	4.2
80°-90°	8.5	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°	252.5	37.3
0°-40°	384.5	56.8
0°-60°	584.5	86.4
0°-90°	676.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	676.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	359	364	364	366	371	34
15°	310	318	325	340	353	87
25°	247	257	270	291	312	114
35°	178	188	206	233	259	111
45°	106	117	141	176	207	84
55°	69	71	84	120	146	62
65°	44	45	52	63	78	44
75°	24	27	27	27	26	26
85°	7	8	8	7	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	371.7	371.7	371.7	371.7	371.7
2.5°	367.0	371.7	369.0	369.8	370.9
5°	358.9	364.3	363.5	366.3	370.6
7.5°	348.7	354.6	355.7	362.0	368.2
10°	337.0	343.7	346.8	356.1	363.9
12.5°	324.2	331.2	336.7	348.3	359.6
15°	310.2	318.0	325.4	340.2	352.6
17.5°	295.7	303.5	313.3	329.6	343.7
20°	280.2	288.7	300.0	317.2	333.9
22.5°	264.2	273.1	285.2	303.9	323.4
25°	247.4	256.8	269.6	290.7	311.7
27.5°	230.7	240.0	254.4	276.6	299.6
30°	213.1	222.9	238.5	262.6	285.6
32.5°	195.6	206.1	222.1	247.8	272.4
35°	177.7	187.8	205.7	233.0	259.1
37.5°	159.8	170.3	189.4	218.6	245.9
40°	141.4	152.4	173.4	204.2	232.6
42.5°	123.1	134.8	157.0	189.4	219.4
45°	106.0	116.9	141.4	176.1	206.9
47.5°	93.1	100.5	125.9	163.3	192.9
50°	83.4	87.3	110.7	149.2	176.1
52.5°	76.0	78.7	96.6	134.0	162.5
55°	69.0	71.3	83.8	119.6	145.7
57.5°	62.7	63.9	74.0	105.6	129.8
60°	56.1	57.3	65.9	90.4	111.4
62.5°	50.3	51.0	59.2	76.0	94.7
65°	44.4	45.2	52.2	63.1	78.3
67.5°	39.0	40.1	45.6	51.4	62.3
70°	33.5	35.8	39.0	41.7	47.9
72.5°	28.8	31.2	32.7	33.5	33.9
75°	24.2	26.9	27.3	26.9	26.1
77.5°	19.5	21.8	21.8	21.0	20.3
80°	15.2	17.1	16.8	16.0	14.8
82.5°	11.3	12.5	12.1	11.3	10.1
85°	7.0	8.2	7.8	7.4	5.8
87.5°	3.5	4.7	4.3	3.9	2.3
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	10.47	11.96	10.84	12.27	12.59	14.25	15.73	14.61	16.05	16.36
	3H	12.13	13.46	12.51	13.79	14.15	15.36	16.69	15.74	17.02	17.38
	4H	12.80	14.05	13.20	14.39	14.77	15.65	16.90	16.05	17.25	17.63
	6H	13.31	14.46	13.73	14.83	15.22	15.85	17.00	16.26	17.37	17.76
	8H	13.49	14.59	13.92	14.98	15.38	15.90	17.00	16.33	17.39	17.79
	12H	13.62	14.67	14.05	15.05	15.48	15.93	16.98	16.36	17.36	17.79
4H	2H	11.26	12.50	11.66	12.85	13.23	14.41	15.65	14.81	16.00	16.38
	3H	13.12	14.15	13.53	14.55	14.95	15.72	16.75	16.13	17.15	17.55
	4H	13.93	14.86	14.36	15.27	15.71	16.13	17.06	16.56	17.47	17.91
	6H	14.57	15.38	15.03	15.82	16.28	16.44	17.25	16.90	17.69	18.15
	8H	14.80	15.56	15.27	16.00	16.47	16.53	17.29	17.00	17.73	18.20
	12H	14.97	15.65	15.46	16.13	16.60	16.60	17.27	17.08	17.75	18.22
8H	4H	14.28	15.03	14.74	15.48	15.94	16.26	17.01	16.72	17.46	17.93
	6H	15.07	15.69	15.57	16.18	16.66	16.67	17.29	17.17	17.79	18.26
	8H	15.39	15.95	15.91	16.46	16.95	16.82	17.38	17.34	17.89	18.38
	12H	15.66	16.15	16.17	16.64	17.21	16.95	17.44	17.46	17.93	18.50
12H	4H	14.31	14.98	14.79	15.46	15.93	16.26	16.94	16.75	17.42	17.89
	6H	15.13	15.69	15.65	16.20	16.69	16.69	17.25	17.21	17.76	18.25
	8H	15.52	16.01	16.03	16.51	17.07	16.90	17.39	17.41	17.88	18.45