

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: P1060832

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D930-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

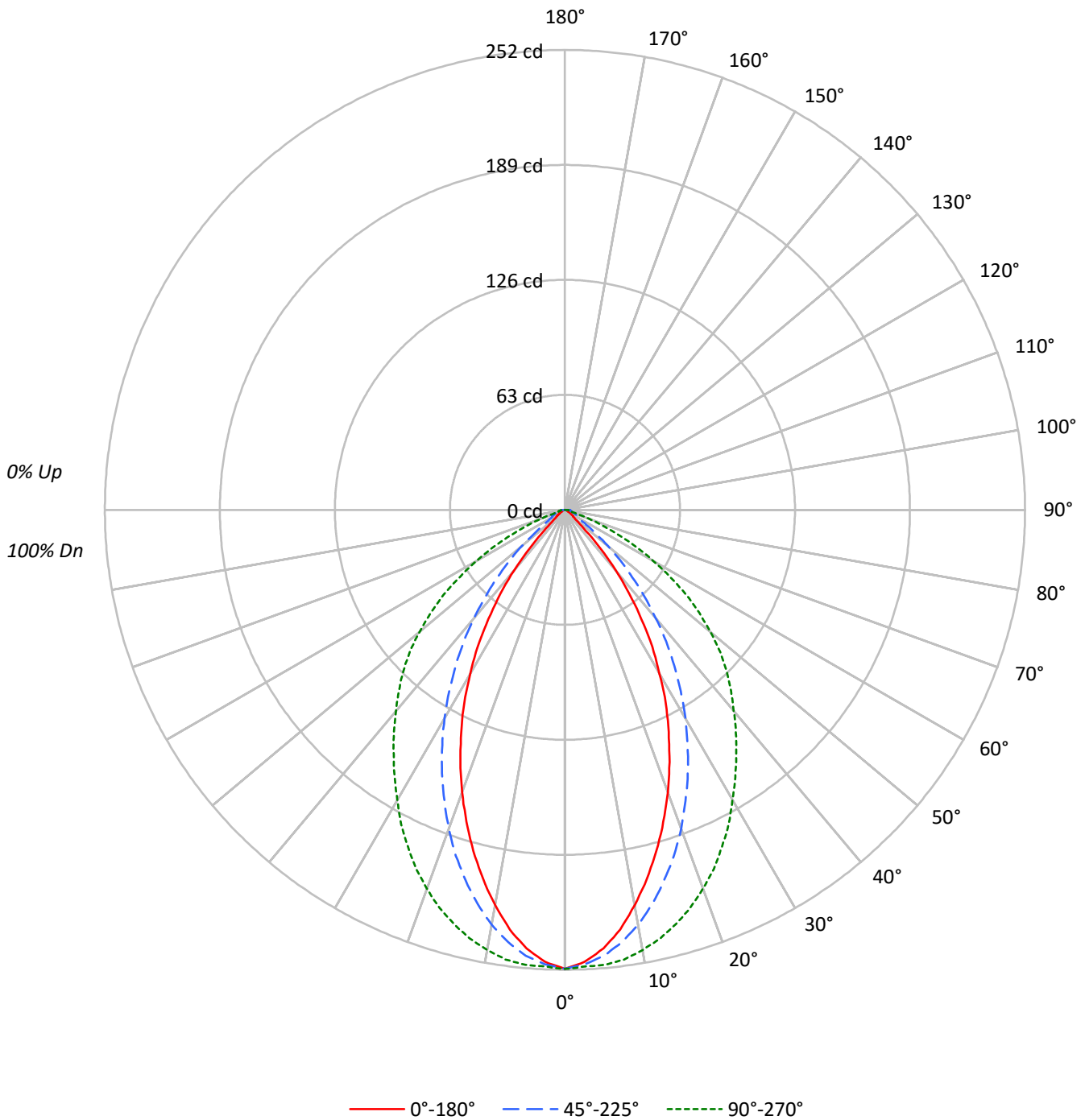
Lumens per Lamp: N/A
Luminaire Lumens: 315.7 lumens
Efficiency: N/A
Efficacy: 27.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50				
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2166	2166	2166
5°	2085	2120	2163
10°	1923	2019	2141
15°	1726	1874	2094
20°	1508	1704	2024
25°	1276	1514	1934
30°	1030	1312	1826
35°	767	1096	1720
40°	487	869	1618
45°	195	637	1526
50°	84	406	1393
55°	65	210	1216
60°	47	143	964
65°	35	143	658
70°	33	126	302
75°	43	133	123
80°	64	149	134
85°	128	267	198

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	7.3
10°-20°	59.4	18.8
20°-30°	75.0	23.8
30°-40°	68.9	21.8
40°-50°	47.0	14.9
50°-60°	25.5	8.1
60°-70°	10.8	3.4
70°-80°	3.7	1.2
80°-90°	2.4	0.8
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°	157.4	49.9
0°-40°	226.3	71.7
0°-60°	298.8	94.6
0°-90°	315.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	315.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	241	245	245	247	250	22
15°	194	200	210	225	235	54
25°	134	143	159	184	204	61
35°	73	83	104	137	164	45
45°	16	26	52	93	125	15
55°	4	5	14	51	81	4
65°	2	2	7	16	32	2
75°	1	4	4	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	251.5	251.5	251.5	251.5	251.5
2.5°	247.9	250.9	249.2	249.9	250.5
5°	241.2	244.9	245.2	247.2	250.2
7.5°	231.9	236.2	238.9	243.9	248.5
10°	219.9	225.2	230.9	238.9	244.9
12.5°	207.2	212.9	221.2	232.6	240.6
15°	193.6	199.9	210.2	225.2	234.9
17.5°	179.2	186.2	198.6	216.2	228.6
20°	164.6	172.3	185.9	205.9	220.9
22.5°	149.6	157.6	172.6	195.2	212.9
25°	134.3	142.9	159.3	183.9	203.6
27.5°	119.6	127.6	145.6	172.6	194.2
30°	103.6	112.6	131.9	160.9	183.6
32.5°	89.0	97.6	117.9	148.9	173.6
35°	73.0	82.6	104.3	136.9	163.6
37.5°	58.0	67.3	91.0	125.6	153.9
40°	43.3	53.0	77.3	114.3	143.9
42.5°	29.0	39.3	64.3	102.6	134.6
45°	16.0	25.7	52.3	92.6	125.3
47.5°	8.3	14.0	41.0	82.6	115.3
50°	6.3	7.7	30.3	71.6	104.0
52.5°	5.3	5.7	20.7	60.6	92.6
55°	4.3	4.7	14.0	51.0	81.0
57.5°	3.3	3.7	10.0	41.6	68.0
60°	2.7	3.0	8.3	32.0	56.0
62.5°	2.0	2.3	8.0	23.7	44.0
65°	1.7	2.0	7.0	16.0	32.3
67.5°	1.3	2.0	6.0	10.3	21.7
70°	1.3	2.7	5.0	6.7	12.0
72.5°	1.3	3.0	4.3	4.3	4.3
75°	1.3	3.7	4.0	3.7	3.7
77.5°	1.3	3.3	3.3	3.3	3.3
80°	1.3	3.0	3.0	3.0	2.7
82.5°	1.3	2.7	3.0	3.0	2.3
85°	1.3	2.7	2.7	2.7	2.0
87.5°	1.0	2.7	2.7	2.7	1.3
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	0.00	0.00	0.00	0.00	0.00	11.12	12.40	11.49	12.71	13.03
	3H	0.00	0.00	0.00	0.00	0.00	11.48	12.61	11.86	12.94	13.30
	4H	0.00	0.00	0.00	0.00	0.00	11.45	12.50	11.85	12.85	13.23
	6H	0.00	0.00	0.00	0.00	0.00	11.42	12.38	11.84	12.76	13.15
	8H	0.00	0.00	0.00	0.00	0.00	11.41	12.32	11.84	12.71	13.12
	12H	0.00	0.00	0.00	0.07	0.50	11.41	12.28	11.84	12.66	13.09
4H	2H	0.00	0.00	0.00	0.00	0.00	10.93	11.98	11.33	12.33	12.71
	3H	0.00	0.00	0.00	0.00	0.00	11.32	12.18	11.74	12.58	12.99
	4H	0.00	0.48	0.15	0.90	1.34	11.30	12.07	11.74	12.49	12.93
	6H	0.93	1.59	1.40	2.04	2.50	11.32	11.98	11.79	12.43	12.89
	8H	1.50	2.11	1.97	2.56	3.03	11.33	11.95	11.80	12.39	12.86
	12H	2.16	2.71	2.65	3.19	3.66	11.37	11.91	11.85	12.39	12.87
8H	4H	0.78	1.39	1.25	1.84	2.31	11.20	11.82	11.67	12.27	12.74
	6H	2.37	2.87	2.88	3.37	3.85	11.25	11.76	11.76	12.25	12.73
	8H	3.21	3.67	3.74	4.18	4.67	11.31	11.76	11.83	12.28	12.77
	12H	4.18	4.58	4.70	5.08	5.65	11.43	11.83	11.94	12.32	12.89
12H	4H	0.96	1.51	1.45	1.99	2.46	11.17	11.71	11.65	12.19	12.67
	6H	2.72	3.17	3.24	3.69	4.18	11.22	11.67	11.74	12.19	12.68
	8H	3.75	4.15	4.27	4.65	5.22	11.33	11.72	11.84	12.22	12.79