

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: P1060841

Luminaire Tested: S124RDR-H350D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060841
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-H350D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

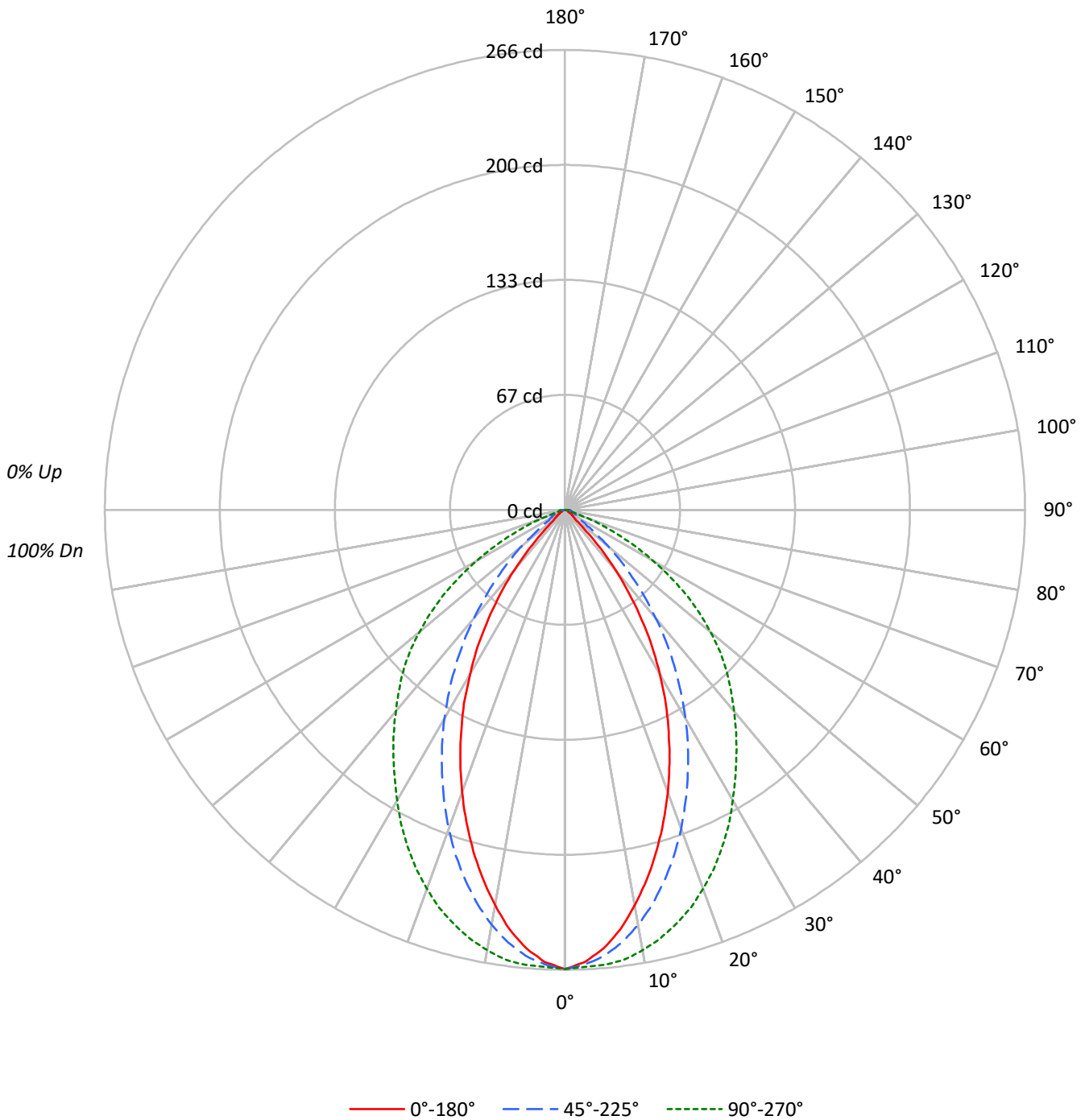
Lumens per Lamp: N/A
Luminaire Lumens: 333.4 lumens
Efficiency: N/A
Efficacy: 28.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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									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	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°	2287	2287	2287
5°	2202	2239	2284
10°	2030	2132	2261
15°	1822	1979	2212
20°	1593	1799	2138
25°	1347	1598	2043
30°	1088	1385	1928
35°	810	1157	1817
40°	514	917	1709
45°	206	672	1611
50°	90	429	1471
55°	69	222	1284
60°	48	152	1018
65°	37	151	695
70°	35	133	320
75°	47	140	130
80°	69	159	139
85°	138	277	207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1611 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.3	7.3
10°-20°	62.7	18.8
20°-30°	79.2	23.8
30°-40°	72.8	21.8
40°-50°	49.6	14.9
50°-60°	26.9	8.1
60°-70°	11.4	3.4
70°-80°	4.0	1.2
80°-90°	2.5	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°	166.3	49.9
0°-40°	239.0	71.7
0°-60°	315.5	94.6
0°-90°	333.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	333.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	266	266	266	266	266	
5°	255	259	259	261	264	24
15°	204	211	222	238	248	57
25°	142	151	168	194	215	65
35°	77	87	110	145	173	48
45°	17	27	55	98	132	16
55°	5	5	15	54	86	4
65°	2	2	7	17	34	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°	265.6	265.6	265.6	265.6	265.6
2.5°	261.8	264.9	263.2	263.9	264.6
5°	254.7	258.6	259.0	261.1	264.2
7.5°	244.9	249.5	252.3	257.6	262.5
10°	232.2	237.9	243.8	252.3	258.6
12.5°	218.9	224.8	233.6	245.6	254.0
15°	204.4	211.1	222.0	237.9	248.1
17.5°	189.3	196.7	209.7	228.4	241.4
20°	173.8	181.9	196.3	217.4	233.3
22.5°	158.0	166.4	182.3	206.2	224.8
25°	141.8	150.9	168.2	194.2	215.0
27.5°	126.3	134.8	153.8	182.3	205.1
30°	109.4	118.9	139.3	169.9	193.9
32.5°	93.9	103.1	124.6	157.3	183.3
35°	77.1	87.3	110.1	144.6	172.8
37.5°	61.2	71.1	96.1	132.6	162.6
40°	45.7	55.9	81.6	120.7	152.0
42.5°	30.6	41.5	67.9	108.4	142.1
45°	16.9	27.1	55.2	97.8	132.3
47.5°	8.8	14.8	43.3	87.3	121.7
50°	6.7	8.1	32.0	75.6	109.8
52.5°	5.6	6.0	21.8	64.0	97.8
55°	4.6	4.9	14.8	53.8	85.5
57.5°	3.5	3.9	10.6	44.0	71.8
60°	2.8	3.2	8.8	33.8	59.1
62.5°	2.1	2.5	8.4	25.0	46.4
65°	1.8	2.1	7.4	16.9	34.1
67.5°	1.4	2.1	6.3	10.9	22.9
70°	1.4	2.8	5.3	7.0	12.7
72.5°	1.4	3.2	4.6	4.6	4.6
75°	1.4	3.9	4.2	3.9	3.9
77.5°	1.4	3.5	3.5	3.5	3.5
80°	1.4	3.2	3.2	3.2	2.8
82.5°	1.4	2.8	3.2	3.2	2.5
85°	1.4	2.8	2.8	2.8	2.1
87.5°	1.1	2.8	2.8	2.8	1.4
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	11.32	12.60	11.69	12.91	13.22
	3H	0.00	0.00	0.00	0.00	0.00	11.68	12.80	12.06	13.13	13.50
	4H	0.00	0.00	0.00	0.00	0.00	11.64	12.69	12.05	13.04	13.43
	6H	0.00	0.00	0.00	0.00	0.00	11.62	12.58	12.03	12.95	13.34
	8H	0.00	0.00	0.00	0.00	0.00	11.61	12.52	12.04	12.91	13.31
	12H	0.00	0.00	0.00	0.31	0.74	11.60	12.48	12.04	12.86	13.29
4H	2H	0.00	0.00	0.00	0.00	0.00	11.12	12.17	11.53	12.52	12.91
	3H	0.00	0.00	0.00	0.00	0.11	11.52	12.37	11.93	12.78	13.18
	4H	0.00	0.67	0.34	1.09	1.54	11.50	12.26	11.93	12.68	13.13
	6H	1.15	1.81	1.61	2.25	2.72	11.52	12.18	11.98	12.62	13.09
	8H	1.71	2.33	2.18	2.77	3.24	11.53	12.14	12.00	12.59	13.06
	12H	2.38	2.92	2.86	3.40	3.88	11.56	12.11	12.05	12.59	13.07
8H	4H	0.97	1.59	1.44	2.04	2.51	11.40	12.01	11.87	12.46	12.93
	6H	2.59	3.09	3.09	3.59	4.07	11.45	11.95	11.95	12.45	12.93
	8H	3.41	3.87	3.94	4.38	4.88	11.51	11.96	12.03	12.48	12.97
	12H	4.37	4.77	4.89	5.26	5.84	11.62	12.02	12.14	12.52	13.09
12H	4H	1.16	1.71	1.65	2.19	2.67	11.36	11.90	11.85	12.39	12.86
	6H	2.94	3.39	3.46	3.91	4.40	11.42	11.87	11.94	12.39	12.88
	8H	3.95	4.35	4.47	4.85	5.42	11.52	11.92	12.04	12.42	12.99