

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: P1060845

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D935-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

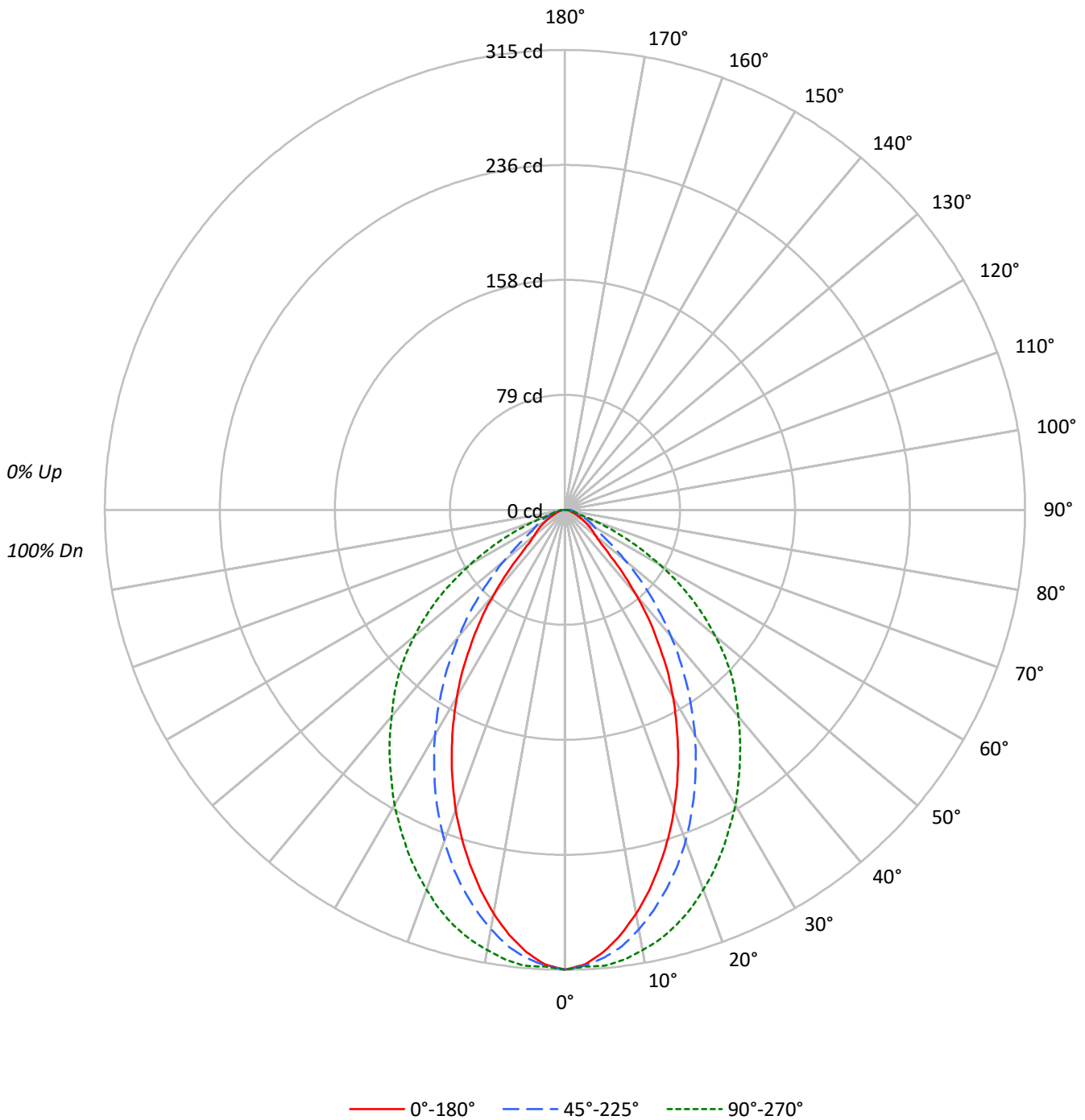
Lumens per Lamp: N/A
Luminaire Lumens: 445.7 lumens
Efficiency: N/A
Efficacy: 38.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2712	2712	2712
5°	2628	2661	2710
10°	2455	2551	2677
15°	2239	2396	2625
20°	2002	2212	2537
25°	1742	1999	2433
30°	1470	1770	2320
35°	1169	1524	2197
40°	850	1269	2076
45°	514	1002	1967
50°	367	726	1800
55°	312	491	1590
60°	255	400	1285
65°	202	359	925
70°	169	302	488
75°	153	279	246
80°	159	278	243
85°	207	415	277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1967 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	6.5
10°-20°	76.0	17.0
20°-30°	98.5	22.1
30°-40°	94.8	21.3
40°-50°	70.6	15.8
50°-60°	43.4	9.7
60°-70°	21.3	4.8
70°-80°	8.3	1.9
80°-90°	3.8	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°	203.5	45.7
0°-40°	298.3	66.9
0°-60°	412.3	92.5
0°-90°	445.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	445.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	315	315	315	315	315	
5°	304	309	308	311	314	28
15°	251	259	269	285	294	70
25°	183	193	210	237	256	84
35°	111	122	145	181	209	69
45°	42	52	82	127	162	35
55°	21	22	33	75	106	19
65°	10	11	18	28	45	10
75°	5	8	8	8	7	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	314.9	314.9	314.9	314.9	314.9
2.5°	311.7	315.3	312.4	312.8	313.1
5°	304.0	308.6	307.9	310.7	313.5
7.5°	293.4	298.7	301.2	306.8	310.7
10°	280.8	286.8	291.7	300.8	306.1
12.5°	266.7	273.7	280.8	293.1	301.2
15°	251.2	259.3	268.8	285.0	294.5
17.5°	235.4	243.5	255.8	274.4	286.4
20°	218.5	227.3	241.4	262.1	276.9
22.5°	200.9	210.4	225.9	249.5	267.0
25°	183.3	193.2	210.4	236.8	256.1
27.5°	165.7	175.2	193.9	223.4	244.5
30°	147.8	157.6	178.0	209.0	233.3
32.5°	130.5	139.7	161.5	195.3	221.0
35°	111.2	121.7	145.0	181.2	209.0
37.5°	94.6	104.1	129.1	167.1	197.0
40°	75.6	86.2	112.9	153.4	184.7
42.5°	58.1	68.6	97.5	139.7	173.1
45°	42.2	52.4	82.3	127.0	161.5
47.5°	32.0	38.0	67.6	114.7	148.5
50°	27.4	29.2	54.2	101.3	134.4
52.5°	24.3	25.0	42.2	88.0	120.3
55°	20.8	21.5	32.7	74.6	105.9
57.5°	17.6	17.9	26.4	61.9	90.4
60°	14.8	15.1	23.2	49.6	74.6
62.5°	12.3	12.7	20.8	38.4	59.5
65°	9.9	10.6	17.6	28.1	45.4
67.5°	8.1	9.5	14.8	19.7	31.7
70°	6.7	9.1	12.0	13.7	19.4
72.5°	5.6	8.4	10.2	9.9	9.5
75°	4.6	8.1	8.4	7.7	7.4
77.5°	3.9	7.0	7.0	6.3	6.0
80°	3.2	5.6	5.6	5.6	4.9
82.5°	2.8	4.6	4.9	4.9	3.9
85°	2.1	3.9	4.2	4.2	2.8
87.5°	1.4	3.5	3.9	3.5	2.1
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	3.24	4.58	3.60	4.89	5.21	12.42	13.76	12.78	14.07	14.39
	3H	4.35	5.54	4.73	5.87	6.24	12.92	14.12	13.30	14.44	14.81
	4H	4.87	5.98	5.27	6.33	6.71	12.94	14.05	13.35	14.41	14.79
	6H	5.31	6.33	5.72	6.70	7.09	12.96	13.98	13.37	14.35	14.74
	8H	5.50	6.47	5.93	6.86	7.26	12.96	13.93	13.39	14.32	14.72
	12H	5.68	6.60	6.11	6.99	7.42	12.96	13.89	13.39	14.27	14.70
4H	2H	4.39	5.50	4.79	5.85	6.23	12.31	13.42	12.71	13.77	14.15
	3H	5.73	6.64	6.14	7.04	7.44	12.90	13.81	13.31	14.21	14.61
	4H	6.46	7.28	6.90	7.70	8.14	12.96	13.77	13.39	14.19	14.63
	6H	7.07	7.78	7.54	8.22	8.69	13.03	13.73	13.49	14.18	14.65
	8H	7.32	7.97	7.79	8.42	8.89	13.06	13.72	13.53	14.17	14.64
	12H	7.55	8.14	8.04	8.62	9.09	13.10	13.68	13.59	14.17	14.64
8H	4H	6.93	7.59	7.40	8.03	8.50	12.91	13.57	13.38	14.02	14.49
	6H	7.78	8.32	8.28	8.81	9.29	13.04	13.58	13.54	14.07	14.55
	8H	8.19	8.67	8.71	9.19	9.68	13.12	13.61	13.64	14.12	14.61
	12H	8.61	9.04	9.13	9.54	10.11	13.24	13.67	13.76	14.17	14.74
12H	4H	6.98	7.56	7.47	8.05	8.52	12.89	13.47	13.37	13.95	14.42
	6H	7.91	8.39	8.43	8.91	9.40	13.02	13.51	13.54	14.02	14.51
	8H	8.43	8.86	8.95	9.36	9.93	13.15	13.58	13.67	14.08	14.65