

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: P1060842

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060842
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
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-W
Description: DEFINE 4 WHITE 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

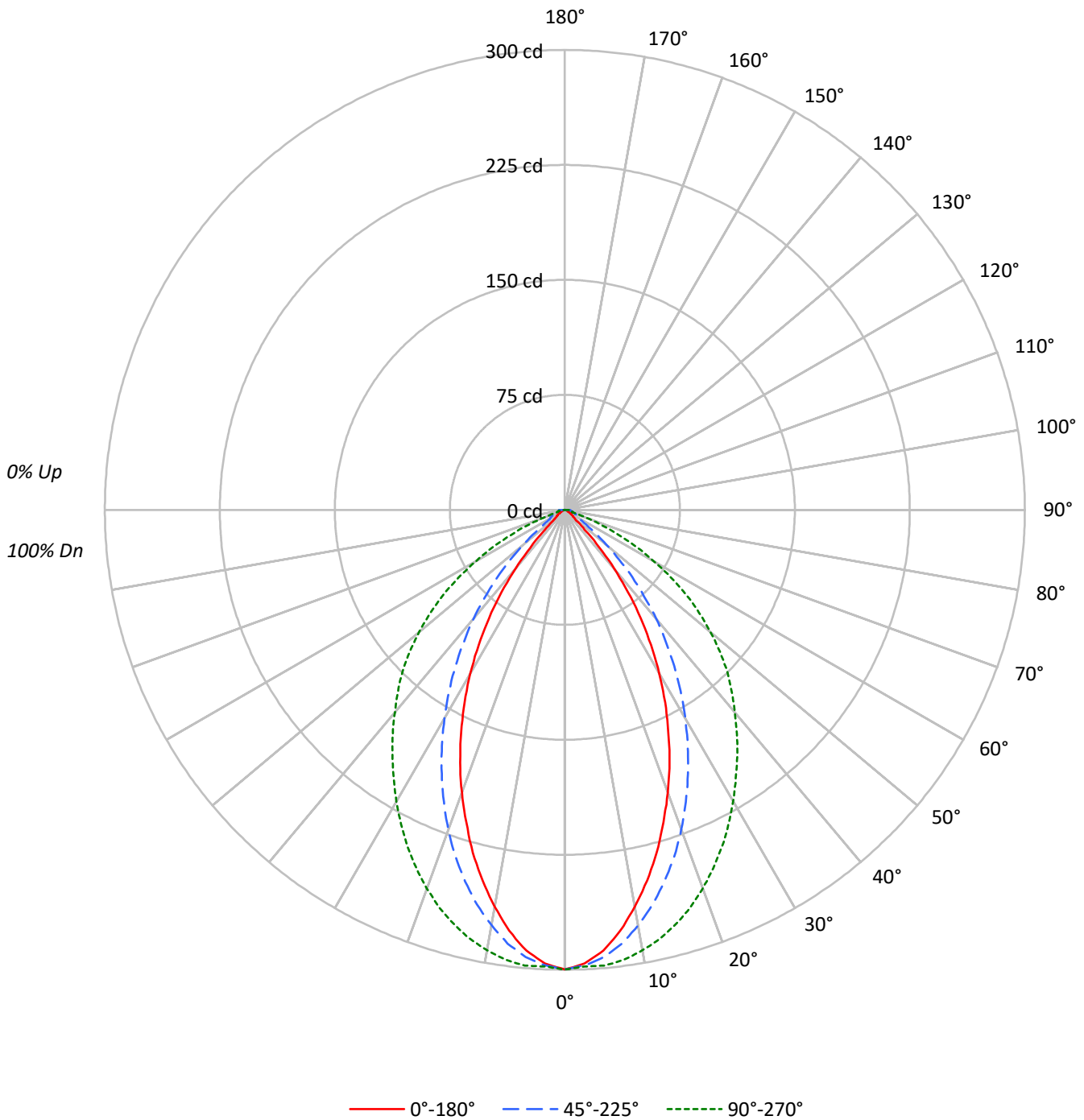
Lumens per Lamp: N/A
Luminaire Lumens: 377.9 lumens
Efficiency: N/A
Efficacy: 32.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2582	2582	2582
5°	2495	2531	2579
10°	2299	2406	2551
15°	2065	2237	2494
20°	1800	2035	2409
25°	1518	1805	2304
30°	1225	1561	2184
35°	906	1306	2060
40°	562	1041	1938
45°	223	759	1825
50°	99	476	1660
55°	80	248	1453
60°	55	188	1157
65°	37	187	797
70°	35	169	373
75°	47	163	163
80°	69	193	193
85°	138	385	277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1825 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	7.3
10°-20°	71.0	18.8
20°-30°	89.6	23.7
30°-40°	82.2	21.8
40°-50°	56.0	14.8
50°-60°	30.5	8.1
60°-70°	13.2	3.5
70°-80°	4.8	1.3
80°-90°	3.1	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°	188.1	49.8
0°-40°	270.3	71.5
0°-60°	356.8	94.4
0°-90°	377.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	377.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	289	292	293	296	298	27
15°	232	240	251	269	280	64
25°	160	171	190	220	242	73
35°	86	99	124	164	196	53
45°	18	31	62	110	150	17
55°	5	6	16	61	97	5
65°	2	2	9	19	39	2
75°	1	5	5	5	5	1
85°	1	3	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	299.8	299.8	299.8	299.8	299.8
2.5°	296.3	299.8	297.4	298.1	298.1
5°	288.6	292.4	292.8	296.0	298.4
7.5°	277.0	282.6	285.4	291.7	296.0
10°	262.9	269.6	275.2	286.1	291.7
12.5°	247.8	255.5	263.9	278.4	286.5
15°	231.6	239.7	250.9	268.9	279.8
17.5°	213.6	223.5	237.2	258.7	272.0
20°	196.4	206.2	222.1	246.3	262.9
22.5°	178.4	188.6	206.2	233.3	253.0
25°	159.8	171.0	190.0	220.3	242.5
27.5°	141.5	153.4	173.5	206.6	231.2
30°	123.2	135.1	157.0	192.5	219.6
32.5°	104.5	116.8	140.4	177.7	207.6
35°	86.2	98.9	124.2	163.6	196.0
37.5°	67.6	80.9	108.0	149.9	184.4
40°	50.0	63.3	92.6	136.2	172.4
42.5°	33.4	46.8	76.7	122.8	161.2
45°	18.3	30.6	62.3	110.5	149.9
47.5°	9.9	16.9	48.2	98.5	137.3
50°	7.4	9.2	35.5	85.9	123.9
52.5°	6.3	7.0	24.6	72.5	110.5
55°	5.3	5.6	16.5	60.9	96.8
57.5°	4.2	4.6	12.3	49.3	82.0
60°	3.2	3.9	10.9	38.0	67.2
62.5°	2.5	3.2	10.2	27.8	53.1
65°	1.8	2.5	9.2	19.0	39.1
67.5°	1.8	2.8	7.7	12.3	26.4
70°	1.4	3.9	6.7	8.1	14.8
72.5°	1.4	4.2	5.6	5.6	5.6
75°	1.4	4.6	4.9	4.9	4.9
77.5°	1.4	4.2	4.6	4.2	4.2
80°	1.4	3.9	3.9	3.9	3.9
82.5°	1.4	3.5	3.9	3.9	3.2
85°	1.4	3.2	3.9	3.9	2.8
87.5°	1.1	3.2	3.5	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	0.00	0.00	0.00	0.00	0.00	11.71	12.99	12.07	13.30	13.61
	3H	0.00	0.00	0.00	0.00	0.00	12.08	13.21	12.46	13.54	13.91
	4H	0.00	0.00	0.00	0.00	0.00	12.06	13.11	12.46	13.46	13.85
	6H	0.00	0.00	0.00	0.00	0.00	12.05	13.01	12.46	13.39	13.78
	8H	0.00	0.00	0.00	0.06	0.46	12.05	12.96	12.48	13.35	13.76
	12H	0.00	0.29	0.00	0.68	1.11	12.06	12.94	12.50	13.32	13.75
4H	2H	0.00	0.00	0.00	0.00	0.00	11.52	12.57	11.92	12.92	13.31
	3H	0.00	0.42	0.00	0.82	1.22	11.94	12.80	12.35	13.20	13.60
	4H	0.85	1.62	1.28	2.04	2.48	11.93	12.70	12.37	13.12	13.57
	6H	1.97	2.63	2.43	3.08	3.55	11.98	12.64	12.44	13.08	13.55
	8H	2.47	3.09	2.94	3.54	4.01	12.00	12.62	12.47	13.07	13.54
	12H	3.02	3.57	3.51	4.05	4.53	12.07	12.61	12.56	13.10	13.57
8H	4H	1.93	2.54	2.40	2.99	3.46	11.84	12.46	12.31	12.91	13.38
	6H	3.47	3.97	3.97	4.47	4.95	11.92	12.43	12.43	12.93	13.41
	8H	4.27	4.72	4.79	5.24	5.73	12.01	12.46	12.53	12.98	13.47
	12H	5.10	5.51	5.62	6.00	6.57	12.18	12.58	12.70	13.08	13.65
12H	4H	2.12	2.66	2.60	3.15	3.62	11.81	12.35	12.30	12.84	13.31
	6H	3.83	4.28	4.35	4.80	5.29	11.90	12.35	12.42	12.87	13.36
	8H	4.83	5.24	5.35	5.73	6.30	12.04	12.44	12.55	12.93	13.51