

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: P1060795

Luminaire Tested: S124RDR-H350D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060795
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D835-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

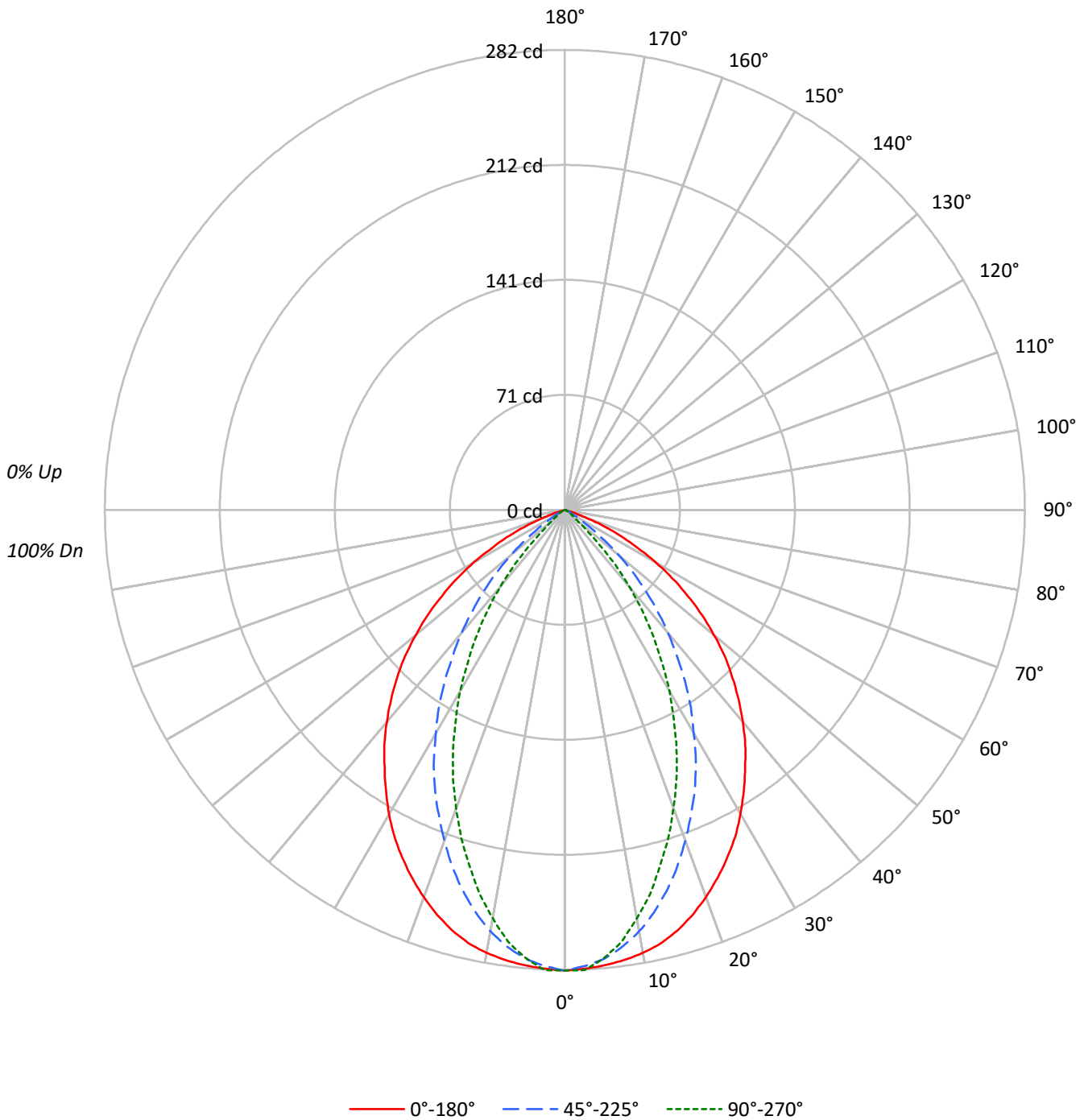
Lumens per Lamp: N/A
Luminaire Lumens: 368.8 lumens
Efficiency: N/A
Efficacy: 31.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2433	2433	2433
5°	2424	2389	2385
10°	2412	2295	2224
15°	2380	2155	2012
20°	2316	1978	1784
25°	2238	1792	1540
30°	2143	1571	1275
35°	2026	1348	991
40°	1909	1106	692
45°	1769	850	343
50°	1597	575	115
55°	1378	294	80
60°	1104	105	57
65°	756	59	24
70°	340	30	20
75°	0	13	13
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1769 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.1	7.1
10°-20°	68.4	18.5
20°-30°	88.5	24.0
30°-40°	84.1	22.8
40°-50°	59.6	16.1
50°-60°	30.6	8.3
60°-70°	10.7	2.9
70°-80°	0.9	0.2
80°-90°	0.0	0.0
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°	183.0	49.6
0°-40°	267.1	72.4
0°-60°	357.2	96.9
0°-90°	368.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	368.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	282	282	282	282	282	
5°	280	281	276	276	276	27
15°	267	259	242	230	226	75
25°	236	217	189	169	162	108
35°	193	164	128	103	94	121
45°	145	112	70	40	28	112
55°	92	60	20	6	5	82
65°	37	18	3	2	1	37
75°	0	0	0	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	282.5	282.5	282.5	282.5	282.5
2.5°	281.7	282.5	280.0	282.1	282.5
5°	280.4	280.8	276.4	276.4	275.9
7.5°	278.4	277.6	270.2	267.4	267.0
10°	275.9	273.1	262.5	256.4	254.3
12.5°	272.3	267.0	252.7	243.7	241.3
15°	267.0	258.8	241.7	230.2	225.7
17.5°	260.4	249.8	229.4	215.5	211.0
20°	252.7	239.2	215.9	200.4	194.7
22.5°	244.5	229.0	202.1	184.5	178.8
25°	235.5	217.2	188.6	168.6	162.1
27.5°	226.1	204.5	173.9	153.1	144.5
30°	215.5	191.9	158.0	136.3	128.2
32.5°	204.1	178.0	143.7	120.4	110.6
35°	192.7	164.5	128.2	103.3	94.3
37.5°	181.7	151.9	112.7	86.5	78.0
40°	169.8	138.0	98.4	71.4	61.6
42.5°	157.6	124.5	83.7	55.9	45.3
45°	145.3	111.8	69.8	40.0	28.2
47.5°	133.1	98.4	56.3	25.3	15.1
50°	119.2	85.3	42.9	13.5	8.6
52.5°	106.1	73.1	30.6	7.8	6.5
55°	91.8	60.4	19.6	5.7	5.3
57.5°	78.4	48.2	11.0	4.5	4.1
60°	64.1	37.1	6.1	3.7	3.3
62.5°	49.8	26.9	4.1	2.4	2.0
65°	37.1	18.0	2.9	1.6	1.2
67.5°	24.5	10.2	2.0	0.8	0.8
70°	13.5	4.9	1.2	0.8	0.8
72.5°	4.9	1.6	0.8	0.4	0.4
75°	0.0	0.4	0.4	0.4	0.4
77.5°	0.0	0.0	0.0	0.0	0.4
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	11.62	12.88	11.99	13.19	13.50	0.00	0.00	0.00	0.00	0.00
	3H	11.90	13.00	12.28	13.33	13.70	0.00	0.00	0.00	0.00	0.00
	4H	11.82	12.85	12.23	13.20	13.58	0.00	0.00	0.00	0.00	0.00
	6H	11.74	12.67	12.15	13.05	13.44	0.00	0.00	0.00	0.00	0.00
	8H	11.69	12.58	12.12	12.97	13.37	0.00	0.00	0.00	0.00	0.00
	12H	11.64	12.49	12.08	12.87	13.30	0.00	0.00	0.00	0.00	0.00
4H	2H	11.39	12.42	11.80	12.77	13.16	0.00	0.00	0.00	0.00	0.00
	3H	11.68	12.51	12.09	12.91	13.31	0.00	0.00	0.00	0.00	0.00
	4H	11.58	12.32	12.02	12.74	13.19	0.00	0.00	0.00	0.00	0.00
	6H	11.50	12.13	11.96	12.58	13.04	0.00	0.00	0.00	0.00	0.00
	8H	11.44	12.02	11.91	12.47	12.94	0.00	0.00	0.00	0.00	0.00
	12H	11.38	11.90	11.87	12.39	12.86	0.00	0.00	0.00	0.00	0.00
8H	4H	11.44	12.02	11.91	12.47	12.94	0.00	0.00	0.00	0.00	0.00
	6H	11.33	11.80	11.83	12.30	12.79	0.00	0.00	0.00	0.00	0.00
	8H	11.26	11.69	11.79	12.21	12.70	0.00	0.00	0.00	0.00	0.00
	12H	11.21	11.59	11.73	12.08	12.66	0.00	0.00	0.00	0.00	0.00
12H	4H	11.38	11.90	11.87	12.39	12.86	0.00	0.00	0.00	0.00	0.00
	6H	11.26	11.69	11.79	12.21	12.70	0.00	0.00	0.00	0.00	0.00
	8H	11.21	11.59	11.73	12.08	12.66	0.00	0.00	0.00	0.00	0.00