

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: P1060840

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060840
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-H350D935-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, 90 CRI LEDS
Ballast/Driver: -

Summary

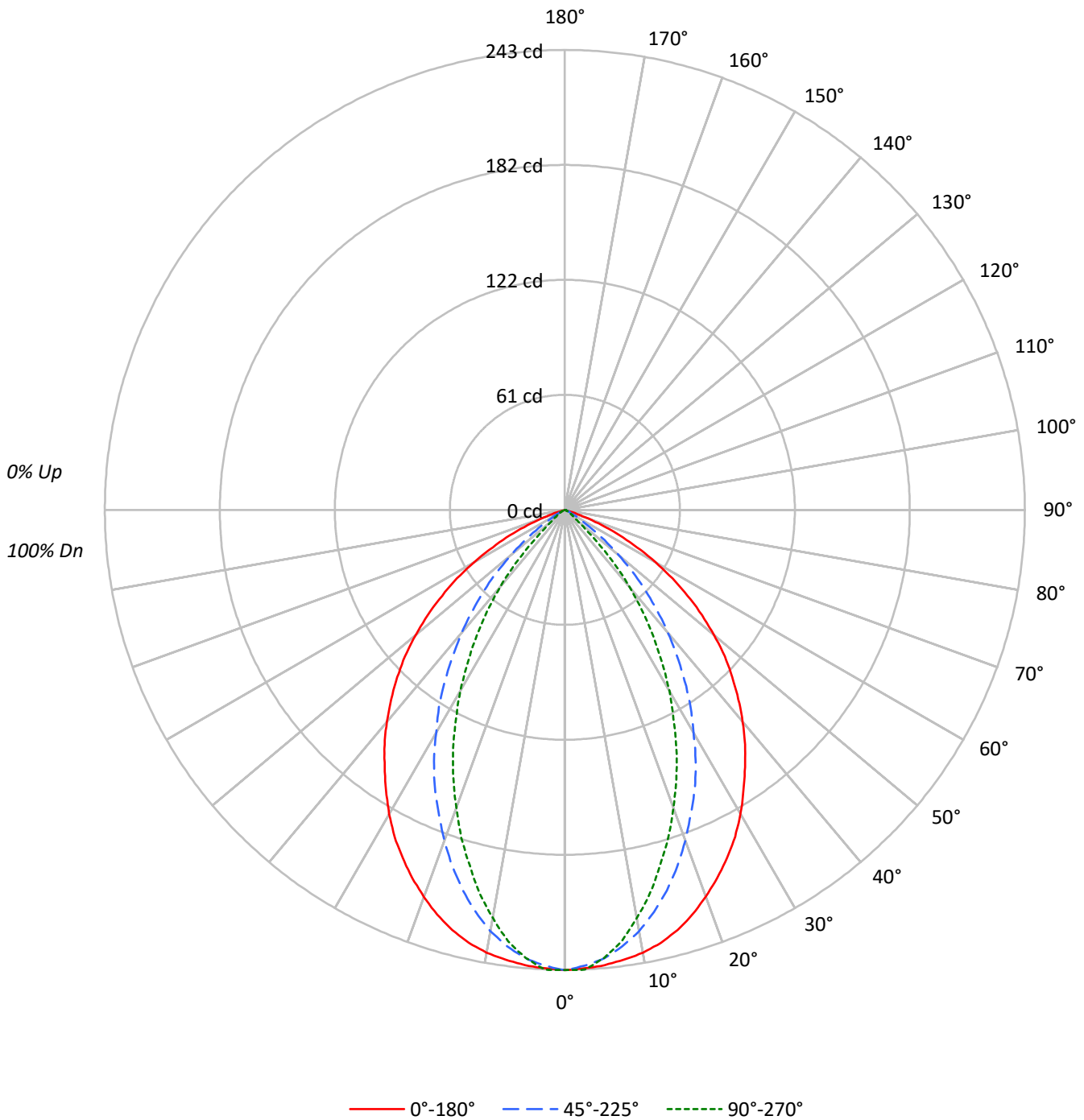
Lumens per Lamp: N/A
Luminaire Lumens: 317.6 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	44	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°	2094	2094	2094
5°	2088	2056	2054
10°	2078	1976	1915
15°	2050	1855	1733
20°	1994	1704	1536
25°	1927	1543	1325
30°	1845	1352	1098
35°	1744	1161	854
40°	1643	952	597
45°	1523	732	296
50°	1374	494	99
55°	1188	254	69
60°	951	91	48
65°	652	51	22
70°	292	28	18
75°	0	13	13
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.5	7.1
10°-20°	58.9	18.5
20°-30°	76.2	24.0
30°-40°	72.4	22.8
40°-50°	51.3	16.1
50°-60°	26.3	8.3
60°-70°	9.2	2.9
70°-80°	0.8	0.3
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°	157.6	49.6
0°-40°	230.0	72.4
0°-60°	307.6	96.8
0°-90°	317.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	317.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	243	243	243	243	243	
5°	242	242	238	238	238	23
15°	230	223	208	198	194	65
25°	203	187	162	145	140	93
35°	166	142	110	89	81	104
45°	125	96	60	34	24	96
55°	79	52	17	5	5	71
65°	32	16	2	1	1	32
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°	243.2	243.2	243.2	243.2	243.2
2.5°	242.5	243.2	241.1	242.9	243.2
5°	241.5	241.8	237.9	237.9	237.6
7.5°	239.7	239.0	232.7	230.2	229.9
10°	237.6	235.1	226.0	220.7	219.0
12.5°	234.4	229.9	217.6	209.8	207.7
15°	229.9	222.8	208.1	198.2	194.4
17.5°	224.2	215.1	197.5	185.6	181.7
20°	217.6	206.0	185.9	172.6	167.6
22.5°	210.5	197.2	174.0	158.9	153.9
25°	202.8	187.0	162.4	145.2	139.5
27.5°	194.7	176.1	149.7	131.8	124.4
30°	185.6	165.2	136.0	117.4	110.4
32.5°	175.7	153.2	123.7	103.7	95.2
35°	165.9	141.6	110.4	88.9	81.2
37.5°	156.4	130.7	97.0	74.5	67.1
40°	146.2	118.8	84.7	61.5	53.1
42.5°	135.7	107.2	72.1	48.2	39.0
45°	125.1	96.3	60.1	34.4	24.3
47.5°	114.6	84.7	48.5	21.8	13.0
50°	102.6	73.5	36.9	11.6	7.4
52.5°	91.4	62.9	26.4	6.7	5.6
55°	79.1	52.0	16.9	4.9	4.6
57.5°	67.5	41.5	9.5	3.9	3.5
60°	55.2	32.0	5.3	3.2	2.8
62.5°	42.9	23.2	3.5	2.1	1.8
65°	32.0	15.5	2.5	1.4	1.1
67.5°	21.1	8.8	1.8	0.7	0.7
70°	11.6	4.2	1.1	0.7	0.7
72.5°	4.2	1.4	0.7	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	11.10	12.36	11.46	12.67	12.98	0.00	0.00	0.00	0.00	0.00
	3H	11.38	12.48	11.76	12.81	13.18	0.00	0.00	0.00	0.00	0.00
	4H	11.30	12.33	11.70	12.68	13.06	0.00	0.00	0.00	0.00	0.00
	6H	11.21	12.15	11.63	12.52	12.92	0.00	0.00	0.00	0.00	0.00
	8H	11.17	12.05	11.60	12.45	12.85	0.00	0.00	0.00	0.00	0.00
	12H	11.12	11.97	11.56	12.35	12.78	0.00	0.00	0.00	0.00	0.00
4H	2H	10.87	11.90	11.28	12.25	12.63	0.00	0.00	0.00	0.00	0.00
	3H	11.16	11.98	11.57	12.39	12.79	0.00	0.00	0.00	0.00	0.00
	4H	11.06	11.80	11.50	12.22	12.67	0.00	0.00	0.00	0.00	0.00
	6H	10.98	11.61	11.44	12.05	12.52	0.00	0.00	0.00	0.00	0.00
	8H	10.92	11.50	11.39	11.95	12.42	0.00	0.00	0.00	0.00	0.00
	12H	10.86	11.38	11.35	11.87	12.34	0.00	0.00	0.00	0.00	0.00
8H	4H	10.92	11.50	11.39	11.95	12.42	0.00	0.00	0.00	0.00	0.00
	6H	10.81	11.28	11.31	11.78	12.27	0.00	0.00	0.00	0.00	0.00
	8H	10.74	11.17	11.27	11.69	12.18	0.00	0.00	0.00	0.00	0.00
	12H	10.69	11.07	11.21	11.56	12.14	0.00	0.00	0.00	0.00	0.00
12H	4H	10.86	11.38	11.35	11.87	12.34	0.00	0.00	0.00	0.00	0.00
	6H	10.74	11.17	11.26	11.69	12.18	0.00	0.00	0.00	0.00	0.00
	8H	10.69	11.07	11.21	11.56	12.14	0.00	0.00	0.00	0.00	0.00