

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: P1060831

Luminaire Tested: S124RDR-H350D930-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060831
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-H350D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

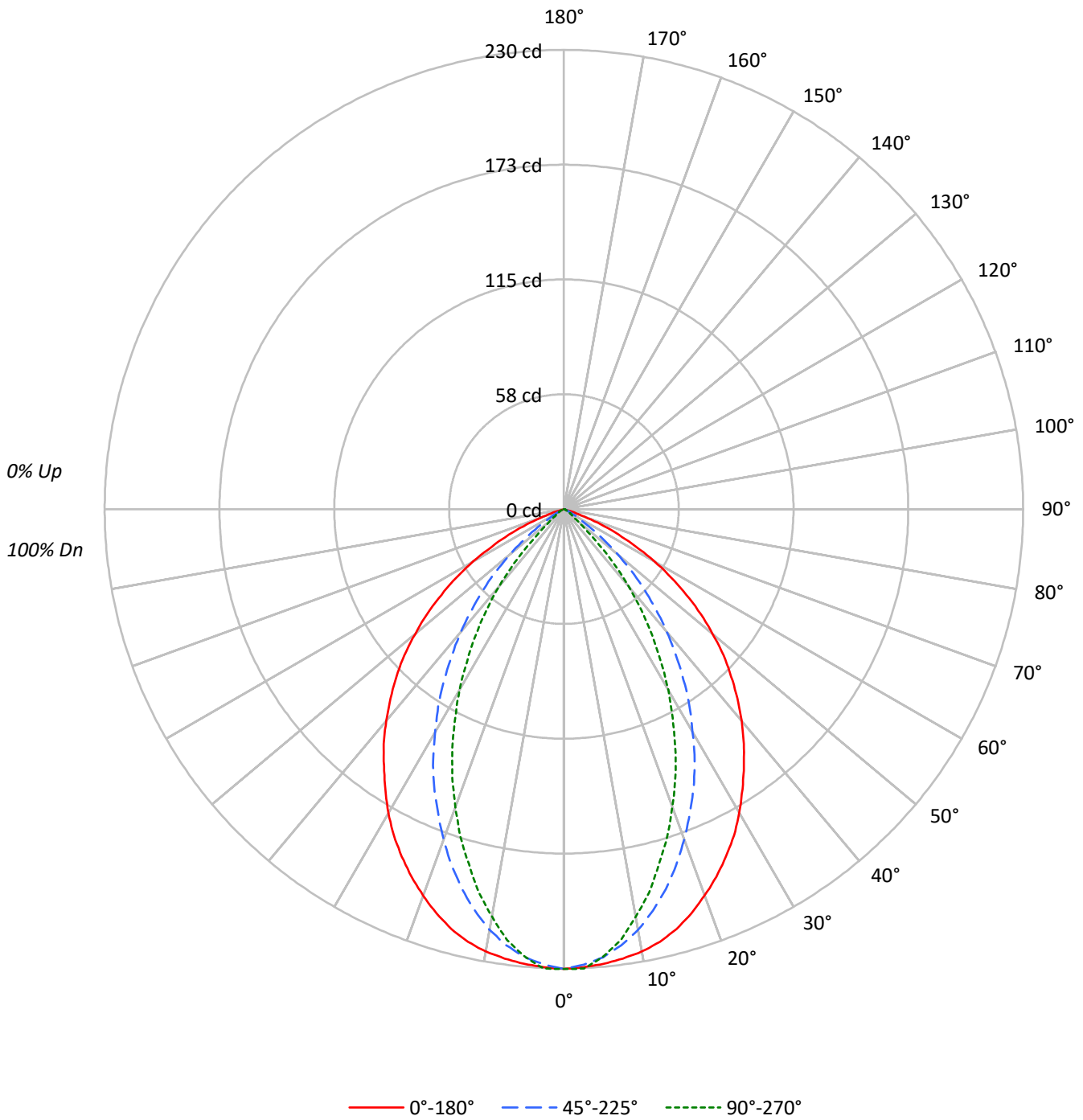
Lumens per Lamp: N/A
Luminaire Lumens: 300.7 lumens
Efficiency: N/A
Efficacy: 25.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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°	1983	1983	1983
5°	1976	1947	1945
10°	1967	1871	1813
15°	1941	1756	1640
20°	1888	1614	1455
25°	1824	1461	1255
30°	1747	1281	1039
35°	1651	1099	808
40°	1556	902	565
45°	1443	693	280
50°	1302	468	94
55°	1124	240	65
60°	901	86	47
65°	617	47	20
70°	277	25	18
75°	0	10	10
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1443 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.3	7.1
10°-20°	55.7	18.5
20°-30°	72.2	24.0
30°-40°	68.6	22.8
40°-50°	48.6	16.1
50°-60°	24.9	8.3
60°-70°	8.7	2.9
70°-80°	0.7	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°	149.2	49.6
0°-40°	217.8	72.4
0°-60°	291.3	96.9
0°-90°	300.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	300.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	230	230	230	230	230	
5°	229	229	225	225	225	22
15°	218	211	197	188	184	61
25°	192	177	154	138	132	88
35°	157	134	104	84	77	98
45°	118	91	57	33	23	91
55°	75	49	16	5	4	67
65°	30	15	2	1	1	30
75°	0	0	0	0	0	2
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°	230.3	230.3	230.3	230.3	230.3
2.5°	229.6	230.3	228.3	230.0	230.3
5°	228.6	229.0	225.3	225.3	225.0
7.5°	227.0	226.3	220.3	218.0	217.7
10°	225.0	222.7	214.0	209.0	207.3
12.5°	222.0	217.7	206.0	198.7	196.7
15°	217.7	211.0	197.0	187.7	184.0
17.5°	212.3	203.7	187.0	175.7	172.1
20°	206.0	195.0	176.1	163.4	158.8
22.5°	199.4	186.7	164.7	150.4	145.8
25°	192.0	177.1	153.8	137.5	132.1
27.5°	184.4	166.7	141.8	124.8	117.8
30°	175.7	156.4	128.8	111.2	104.5
32.5°	166.4	145.1	117.1	98.2	90.2
35°	157.1	134.1	104.5	84.2	76.9
37.5°	148.1	123.8	91.9	70.6	63.6
40°	138.4	112.5	80.2	58.2	50.3
42.5°	128.5	101.5	68.2	45.6	36.9
45°	118.5	91.2	56.9	32.6	23.0
47.5°	108.5	80.2	45.9	20.6	12.3
50°	97.2	69.6	34.9	11.0	7.0
52.5°	86.5	59.6	25.0	6.3	5.3
55°	74.9	49.3	16.0	4.7	4.3
57.5°	63.9	39.3	9.0	3.7	3.3
60°	52.3	30.3	5.0	3.0	2.7
62.5°	40.6	22.0	3.3	2.0	1.7
65°	30.3	14.6	2.3	1.3	1.0
67.5°	20.0	8.3	1.7	0.7	0.7
70°	11.0	4.0	1.0	0.7	0.7
72.5°	4.0	1.3	0.7	0.3	0.3
75°	0.0	0.3	0.3	0.3	0.3
77.5°	0.0	0.0	0.0	0.0	0.3
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	10.91	12.17	11.28	12.48	12.80	0.00	0.00	0.00	0.00	0.00
	3H	11.19	12.29	11.57	12.62	12.99	0.00	0.00	0.00	0.00	0.00
	4H	11.11	12.14	11.52	12.49	12.87	0.00	0.00	0.00	0.00	0.00
	6H	11.03	11.96	11.44	12.34	12.73	0.00	0.00	0.00	0.00	0.00
	8H	10.98	11.87	11.41	12.26	12.66	0.00	0.00	0.00	0.00	0.00
	12H	10.93	11.78	11.37	12.16	12.59	0.00	0.00	0.00	0.00	0.00
4H	2H	10.68	11.71	11.09	12.06	12.45	0.00	0.00	0.00	0.00	0.00
	3H	10.97	11.80	11.38	12.20	12.61	0.00	0.00	0.00	0.00	0.00
	4H	10.88	11.61	11.31	12.03	12.48	0.00	0.00	0.00	0.00	0.00
	6H	10.79	11.42	11.25	11.87	12.33	0.00	0.00	0.00	0.00	0.00
	8H	10.73	11.31	11.20	11.76	12.24	0.00	0.00	0.00	0.00	0.00
	12H	10.67	11.19	11.16	11.68	12.15	0.00	0.00	0.00	0.00	0.00
8H	4H	10.73	11.31	11.20	11.76	12.24	0.00	0.00	0.00	0.00	0.00
	6H	10.62	11.09	11.12	11.59	12.08	0.00	0.00	0.00	0.00	0.00
	8H	10.55	10.98	11.08	11.50	11.99	0.00	0.00	0.00	0.00	0.00
	12H	10.50	10.88	11.02	11.37	11.95	0.00	0.00	0.00	0.00	0.00
12H	4H	10.68	11.19	11.16	11.68	12.15	0.00	0.00	0.00	0.00	0.00
	6H	10.55	10.98	11.08	11.50	11.99	0.00	0.00	0.00	0.00	0.00
	8H	10.50	10.88	11.02	11.37	11.95	0.00	0.00	0.00	0.00	0.00