

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: P1060834

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060834
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D930-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

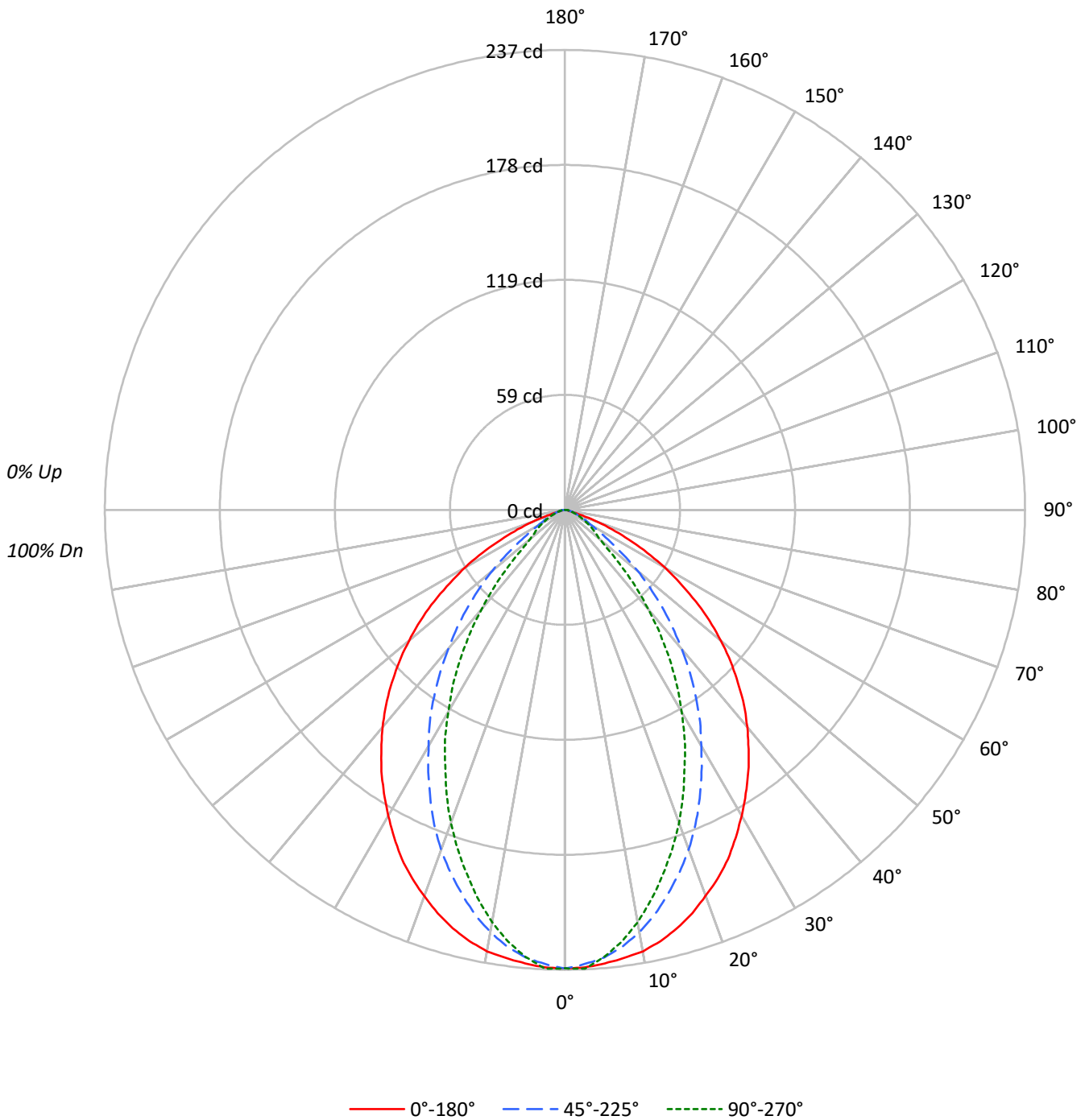
Lumens per Lamp: N/A
Luminaire Lumens: 348.4 lumens
Efficiency: N/A
Efficacy: 29.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2035	2035	2035
5°	2028	2002	1999
10°	2020	1932	1886
15°	1991	1828	1736
20°	1940	1708	1573
25°	1888	1559	1385
30°	1810	1396	1194
35°	1731	1235	987
40°	1642	1051	749
45°	1536	860	503
50°	1404	651	312
55°	1234	429	264
60°	1020	264	217
65°	740	204	177
70°	403	151	133
75°	90	110	123
80°	64	84	99
85°	69	69	99

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1536 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.9	6.3
10°-20°	58.1	16.7
20°-30°	77.0	22.1
30°-40°	76.5	21.9
40°-50°	58.8	16.9
50°-60°	35.1	10.1
60°-70°	15.9	4.6
70°-80°	4.1	1.2
80°-90°	0.9	0.3
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°	157.1	45.1
0°-40°	233.5	67.0
0°-60°	327.4	94.0
0°-90°	348.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	348.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	236	236	236	236	236	
5°	235	235	232	232	231	22
15°	223	218	205	198	195	63
25°	199	184	164	150	146	91
35°	165	144	118	100	94	103
45°	126	102	71	49	41	97
55°	82	59	29	18	18	73
65°	36	22	10	9	9	36
75°	3	3	3	4	4	6
85°	1	1	1	1	1	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	236.3	236.3	236.3	236.3	236.3
2.5°	236.0	236.3	234.3	236.0	236.6
5°	234.6	235.0	231.6	231.6	231.3
7.5°	233.0	232.3	227.0	225.0	224.3
10°	231.0	228.6	221.0	217.0	215.7
12.5°	227.6	224.0	213.7	208.0	205.7
15°	223.3	217.7	205.0	198.0	194.7
17.5°	218.0	211.0	196.0	187.0	183.4
20°	211.7	202.3	186.4	175.1	171.7
22.5°	205.7	194.0	175.7	162.7	159.1
25°	198.7	184.4	164.1	150.4	145.8
27.5°	190.4	175.1	152.4	138.4	133.8
30°	182.0	165.1	140.4	125.8	120.1
32.5°	173.4	154.8	129.5	112.8	107.5
35°	164.7	144.1	117.5	99.5	93.9
37.5°	155.4	133.5	105.5	86.9	80.5
40°	146.1	123.1	93.5	74.5	66.6
42.5°	136.5	112.5	81.9	61.9	53.9
45°	126.1	101.5	70.6	49.3	41.3
47.5°	115.8	91.2	59.2	36.9	29.6
50°	104.8	80.2	48.6	27.0	23.3
52.5°	93.9	69.6	37.9	21.0	20.0
55°	82.2	58.6	28.6	18.0	17.6
57.5°	70.2	48.6	20.6	15.6	15.0
60°	59.2	39.3	15.3	13.3	12.6
62.5°	47.9	29.6	12.6	11.0	10.3
65°	36.3	21.6	10.0	8.7	8.7
67.5°	26.3	14.6	8.0	7.0	6.7
70°	16.0	9.0	6.0	5.7	5.3
72.5°	8.0	5.3	4.7	4.3	4.3
75°	2.7	3.3	3.3	3.7	3.7
77.5°	2.0	2.3	2.3	2.7	2.7
80°	1.3	1.7	1.7	2.0	2.0
82.5°	1.0	1.0	1.3	1.3	1.7
85°	0.7	0.7	0.7	1.0	1.0
87.5°	0.3	0.3	0.3	0.7	0.7
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	11.59	12.92	11.95	13.23	13.55	3.12	4.46	3.49	4.77	5.09
	3H	12.10	13.28	12.48	13.61	13.97	3.95	5.13	4.33	5.46	5.82
	4H	12.06	13.16	12.47	13.51	13.89	4.23	5.33	4.64	5.68	6.07
	6H	12.00	13.01	12.41	13.38	13.77	4.41	5.42	4.83	5.79	6.18
	8H	11.96	12.91	12.39	13.30	13.71	4.48	5.43	4.91	5.82	6.23
	12H	11.92	12.83	12.35	13.22	13.65	4.52	5.44	4.96	5.82	6.25
4H	2H	11.43	12.53	11.83	12.88	13.26	3.57	4.67	3.97	5.02	5.40
	3H	11.98	12.88	12.40	13.28	13.68	4.54	5.43	4.95	5.84	6.24
	4H	11.95	12.75	12.39	13.17	13.61	4.91	5.71	5.35	6.13	6.57
	6H	11.90	12.59	12.36	13.03	13.50	5.17	5.85	5.63	6.30	6.77
	8H	11.85	12.49	12.32	12.94	13.41	5.26	5.90	5.73	6.34	6.81
	12H	11.81	12.38	12.30	12.86	13.34	5.33	5.90	5.82	6.38	6.86
8H	4H	11.84	12.48	12.31	12.93	13.40	5.00	5.64	5.47	6.08	6.56
	6H	11.78	12.30	12.28	12.80	13.28	5.31	5.84	5.82	6.33	6.81
	8H	11.73	12.20	12.26	12.72	13.21	5.44	5.91	5.97	6.43	6.92
	12H	11.70	12.12	12.22	12.61	13.18	5.58	6.00	6.10	6.49	7.06
12H	4H	11.80	12.36	12.29	12.85	13.32	4.97	5.54	5.46	6.02	6.49
	6H	11.72	12.19	12.25	12.71	13.20	5.29	5.76	5.82	6.28	6.77
	8H	11.70	12.11	12.21	12.61	13.18	5.46	5.88	5.98	6.37	6.94