

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060444

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060444
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: S124RDRP-S350D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

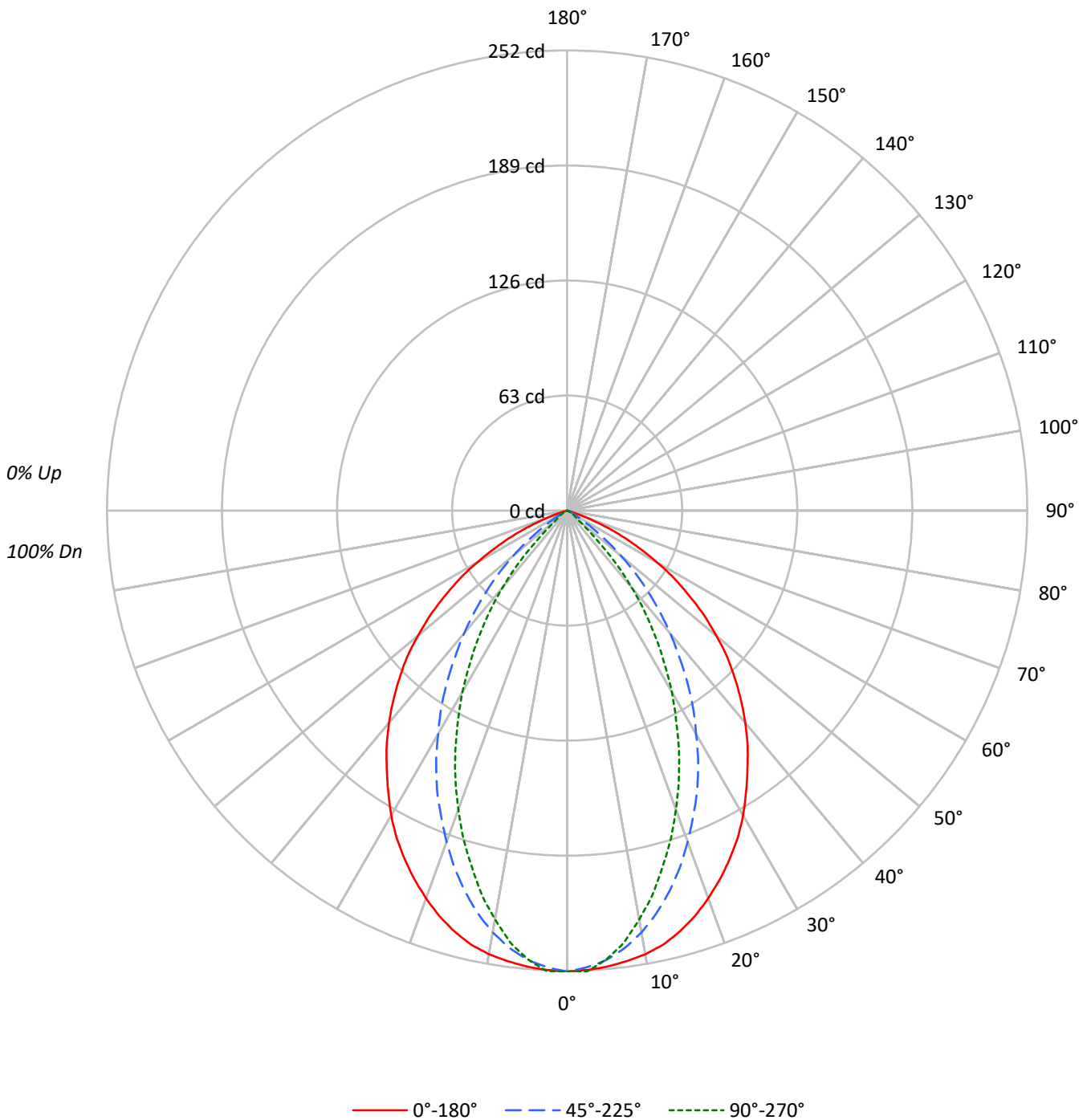
Lumens per Lamp: N/A
Luminaire Lumens: 329.7 lumens
Efficiency: N/A
Efficacy: 26.4 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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°	2174	2174	2174
5°	2167	2135	2132
10°	2157	2051	1988
15°	2127	1926	1799
20°	2070	1769	1595
25°	2000	1602	1377
30°	1916	1404	1139
35°	1810	1205	886
40°	1706	988	619
45°	1582	760	307
50°	1428	513	103
55°	1233	263	71
60°	987	95	50
65°	676	53	22
70°	302	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: 1582 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	7.1
10°-20°	61.1	18.5
20°-30°	79.1	24.0
30°-40°	75.2	22.8
40°-50°	53.2	16.1
50°-60°	27.3	8.3
60°-70°	9.6	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°	163.6	49.6
0°-40°	238.8	72.4
0°-60°	319.3	96.8
0°-90°	329.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	329.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	251	251	247	247	247	24
15°	239	231	216	206	202	67
25°	210	194	169	151	145	97
35°	172	147	115	92	84	108
45°	130	100	62	36	25	100
55°	82	54	18	5	5	73
65°	33	16	3	2	1	33
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°	252.5	252.5	252.5	252.5	252.5
2.5°	251.8	252.5	250.3	252.1	252.5
5°	250.7	251.0	247.0	247.0	246.7
7.5°	248.9	248.1	241.6	239.0	238.6
10°	246.7	244.1	234.6	229.2	227.3
12.5°	243.4	238.6	225.9	217.8	215.7
15°	238.6	231.3	216.0	205.8	201.8
17.5°	232.8	223.3	205.1	192.7	188.7
20°	225.9	213.8	193.0	179.2	174.1
22.5°	218.6	204.7	180.6	164.9	159.8
25°	210.5	194.1	168.6	150.7	144.9
27.5°	202.2	182.8	155.4	136.8	129.2
30°	192.7	171.5	141.2	121.9	114.6
32.5°	182.4	159.1	128.4	107.6	98.9
35°	172.2	147.1	114.6	92.3	84.3
37.5°	162.4	135.7	100.7	77.4	69.7
40°	151.8	123.3	87.9	63.9	55.1
42.5°	140.9	111.3	74.8	50.0	40.5
45°	129.9	100.0	62.4	35.8	25.2
47.5°	119.0	87.9	50.4	22.6	13.5
50°	106.6	76.3	38.3	12.0	7.7
52.5°	94.9	65.3	27.4	6.9	5.8
55°	82.1	54.0	17.5	5.1	4.7
57.5°	70.1	43.1	9.9	4.0	3.6
60°	57.3	33.2	5.5	3.3	2.9
62.5°	44.5	24.1	3.6	2.2	1.8
65°	33.2	16.1	2.6	1.5	1.1
67.5°	21.9	9.1	1.8	0.7	0.7
70°	12.0	4.4	1.1	0.7	0.7
72.5°	4.4	1.5	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	11.23	12.49	11.60	12.80	13.12	0.00	0.00	0.00	0.00	0.00
	3H	11.51	12.61	11.89	12.95	13.31	0.00	0.00	0.00	0.00	0.00
	4H	11.43	12.46	11.84	12.81	13.19	0.00	0.00	0.00	0.00	0.00
	6H	11.35	12.28	11.76	12.66	13.05	0.00	0.00	0.00	0.00	0.00
	8H	11.30	12.19	11.73	12.58	12.98	0.00	0.00	0.00	0.00	0.00
	12H	11.25	12.10	11.69	12.48	12.91	0.00	0.00	0.00	0.00	0.00
4H	2H	11.01	12.03	11.41	12.38	12.77	0.00	0.00	0.00	0.00	0.00
	3H	11.29	12.12	11.70	12.52	12.93	0.00	0.00	0.00	0.00	0.00
	4H	11.20	11.93	11.63	12.35	12.80	0.00	0.00	0.00	0.00	0.00
	6H	11.11	11.74	11.57	12.19	12.66	0.00	0.00	0.00	0.00	0.00
	8H	11.05	11.64	11.52	12.08	12.56	0.00	0.00	0.00	0.00	0.00
	12H	11.00	11.51	11.48	12.00	12.47	0.00	0.00	0.00	0.00	0.00
8H	4H	11.05	11.64	11.52	12.08	12.56	0.00	0.00	0.00	0.00	0.00
	6H	10.94	11.42	11.44	11.91	12.40	0.00	0.00	0.00	0.00	0.00
	8H	10.87	11.30	11.40	11.82	12.31	0.00	0.00	0.00	0.00	0.00
	12H	10.82	11.20	11.34	11.70	12.27	0.00	0.00	0.00	0.00	0.00
12H	4H	11.00	11.51	11.48	12.00	12.47	0.00	0.00	0.00	0.00	0.00
	6H	10.87	11.30	11.40	11.82	12.31	0.00	0.00	0.00	0.00	0.00
	8H	10.82	11.20	11.34	11.70	12.27	0.00	0.00	0.00	0.00	0.00