

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: P1060445

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
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-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

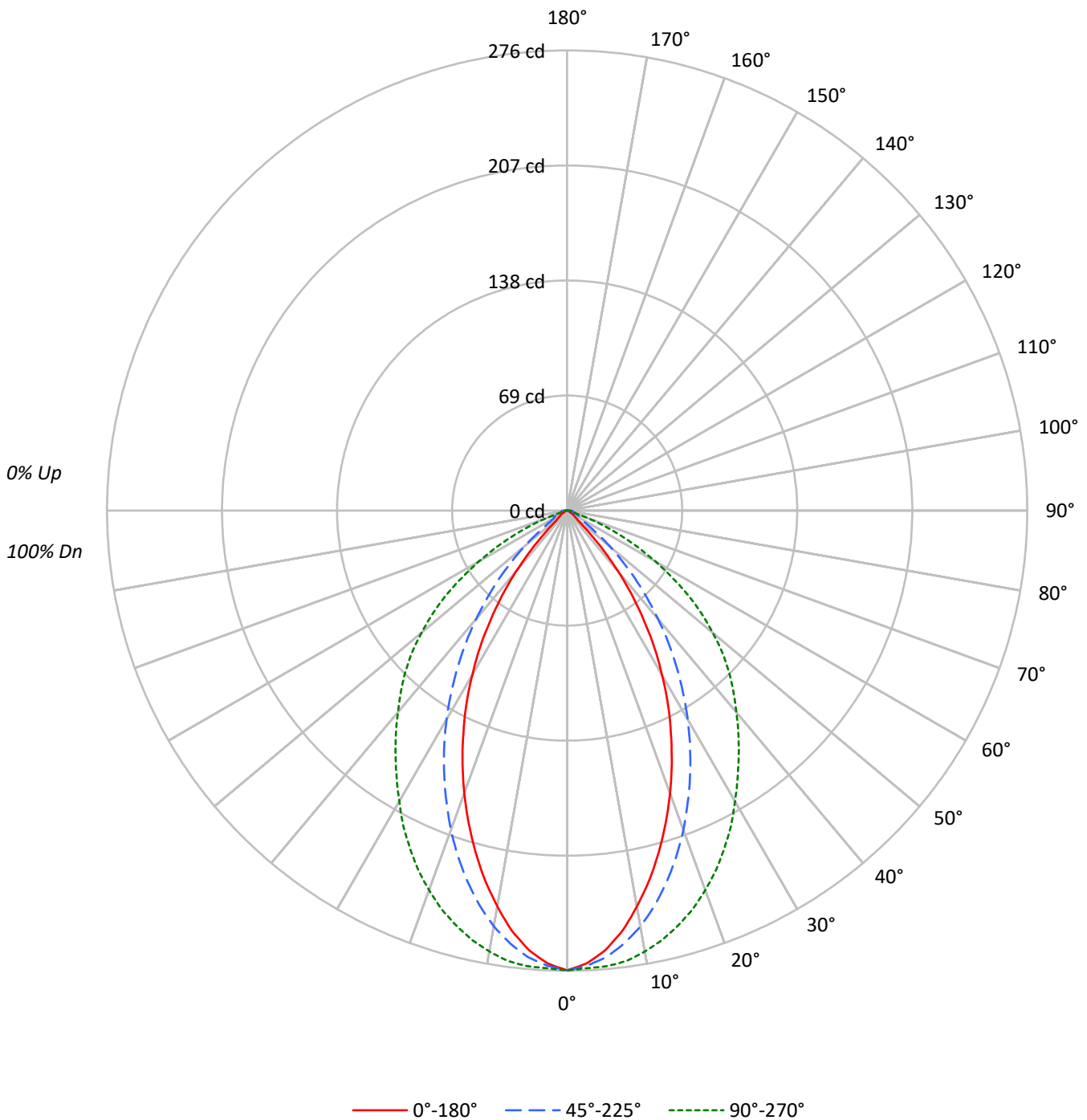
Lumens per Lamp: N/A
Luminaire Lumens: 346.1 lumens
Efficiency: N/A
Efficacy: 27.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2375	2375	2375
5°	2286	2324	2371
10°	2108	2214	2348
15°	1892	2055	2296
20°	1654	1868	2219
25°	1399	1659	2121
30°	1130	1439	2002
35°	841	1202	1886
40°	534	952	1774
45°	213	699	1673
50°	92	445	1527
55°	71	230	1333
60°	50	157	1057
65°	37	157	721
70°	38	138	332
75°	50	146	133
80°	74	164	144
85°	148	287	217

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1673 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	7.3
10°-20°	65.1	18.8
20°-30°	82.2	23.8
30°-40°	75.5	21.8
40°-50°	51.5	14.9
50°-60°	27.9	8.1
60°-70°	11.9	3.4
70°-80°	4.1	1.2
80°-90°	2.6	0.8
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°	172.6	49.9
0°-40°	248.1	71.7
0°-60°	327.6	94.6
0°-90°	346.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	346.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	276	276	276	276	276	
5°	264	268	269	271	274	25
15°	212	219	230	247	258	59
25°	147	157	175	202	223	67
35°	80	91	114	150	179	50
45°	18	28	57	102	137	16
55°	5	5	15	56	89	4
65°	2	2	8	18	35	2
75°	2	4	4	4	4	2
85°	2	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	275.8	275.8	275.8	275.8	275.8
2.5°	271.8	275.1	273.2	274.0	274.7
5°	264.5	268.5	268.9	271.1	274.3
7.5°	254.2	259.0	261.9	267.4	272.5
10°	241.1	246.9	253.2	261.9	268.5
12.5°	227.2	233.4	242.6	255.0	263.7
15°	212.2	219.2	230.5	246.9	257.5
17.5°	196.5	204.2	217.7	237.1	250.6
20°	180.5	188.9	203.8	225.8	242.2
22.5°	164.0	172.8	189.2	214.1	233.4
25°	147.2	156.7	174.6	201.6	223.2
27.5°	131.1	139.9	159.6	189.2	213.0
30°	113.6	123.5	144.7	176.4	201.3
32.5°	97.5	107.0	129.3	163.3	190.3
35°	80.0	90.6	114.3	150.1	179.4
37.5°	63.6	73.8	99.7	137.7	168.8
40°	47.5	58.1	84.7	125.3	157.8
42.5°	31.8	43.1	70.5	112.5	147.6
45°	17.5	28.1	57.4	101.6	137.4
47.5°	9.1	15.3	44.9	90.6	126.4
50°	6.9	8.4	33.2	78.5	114.0
52.5°	5.8	6.2	22.6	66.5	101.6
55°	4.7	5.1	15.3	55.9	88.8
57.5°	3.7	4.0	11.0	45.7	74.5
60°	2.9	3.3	9.1	35.1	61.4
62.5°	2.2	2.6	8.8	25.9	48.2
65°	1.8	2.2	7.7	17.5	35.4
67.5°	1.5	2.2	6.6	11.3	23.7
70°	1.5	2.9	5.5	7.3	13.2
72.5°	1.5	3.3	4.7	4.7	4.7
75°	1.5	4.0	4.4	4.0	4.0
77.5°	1.5	3.7	3.7	3.7	3.7
80°	1.5	3.3	3.3	3.3	2.9
82.5°	1.5	2.9	3.3	3.3	2.6
85°	1.5	2.9	2.9	2.9	2.2
87.5°	1.1	2.9	2.9	2.9	1.5
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	0.00	0.00	0.00	0.00	0.00	11.45	12.73	11.82	13.04	13.35
	3H	0.00	0.00	0.00	0.00	0.00	11.81	12.93	12.19	13.26	13.63
	4H	0.00	0.00	0.00	0.00	0.00	11.77	12.82	12.17	13.17	13.56
	6H	0.00	0.00	0.00	0.00	0.00	11.75	12.71	12.16	13.08	13.47
	8H	0.00	0.00	0.00	0.00	0.18	11.74	12.65	12.17	13.04	13.44
	12H	0.00	0.15	0.00	0.54	0.97	11.74	12.61	12.17	12.99	13.42
4H	2H	0.00	0.00	0.00	0.00	0.00	11.25	12.30	11.66	12.65	13.04
	3H	0.00	0.00	0.00	0.00	0.24	11.65	12.50	12.06	12.91	13.31
	4H	0.03	0.79	0.46	1.21	1.66	11.63	12.39	12.06	12.81	13.25
	6H	1.30	1.96	1.76	2.40	2.87	11.65	12.31	12.11	12.75	13.22
	8H	1.87	2.49	2.34	2.94	3.41	11.66	12.27	12.13	12.72	13.19
	12H	2.56	3.10	3.04	3.58	4.06	11.69	12.24	12.18	12.72	13.20
8H	4H	1.11	1.72	1.58	2.17	2.64	11.53	12.14	12.00	12.59	13.06
	6H	2.74	3.24	3.24	3.74	4.22	11.58	12.08	12.08	12.58	13.06
	8H	3.56	4.02	4.09	4.53	5.03	11.64	12.09	12.16	12.61	13.10
	12H	4.53	4.93	5.04	5.42	6.00	11.75	12.15	12.27	12.65	13.22
12H	4H	1.30	1.84	1.79	2.32	2.80	11.49	12.03	11.98	12.52	12.99
	6H	3.08	3.53	3.61	4.05	4.54	11.55	12.00	12.07	12.52	13.01
	8H	4.09	4.49	4.61	4.99	5.56	11.65	12.05	12.17	12.55	13.12