

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: P1060452

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

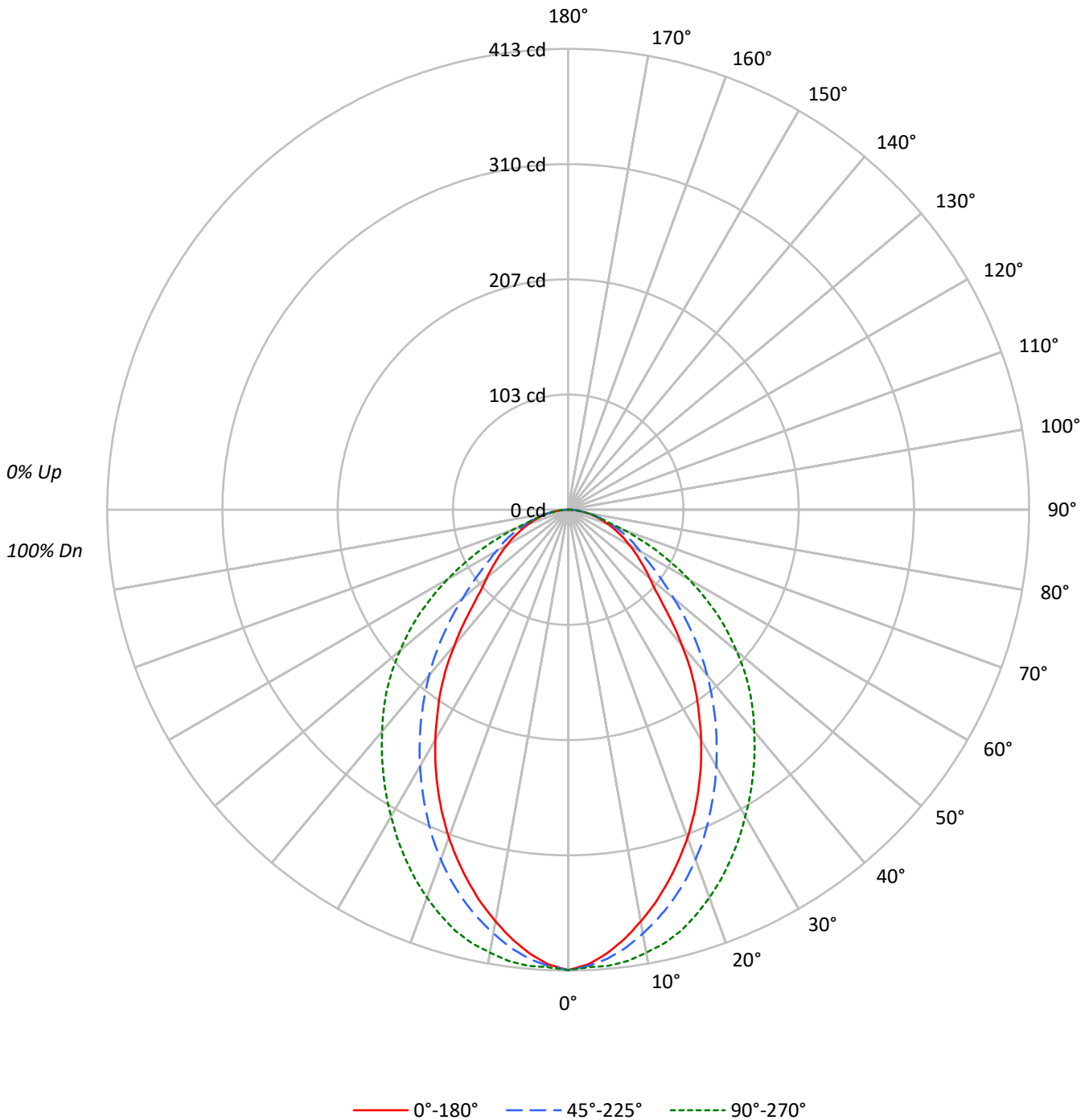
Lumens per Lamp: N/A
Luminaire Lumens: 757.1 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3553	3553	3553
5°	3450	3491	3548
10°	3275	3372	3525
15°	3079	3229	3483
20°	2865	3058	3390
25°	2626	2855	3279
30°	2367	2640	3155
35°	2096	2415	3036
40°	1782	2180	2915
45°	1459	1925	2801
50°	1277	1653	2636
55°	1173	1425	2440
60°	1088	1283	2151
65°	1019	1206	1801
70°	957	1103	1352
75°	898	1008	985
80°	833	922	833
85°	761	899	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2801 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.1	5.0
10°-20°	102.6	13.6
20°-30°	140.2	18.5
30°-40°	147.4	19.5
40°-50°	127.9	16.9
50°-60°	96.5	12.7
60°-70°	62.5	8.3
70°-80°	32.1	4.2
80°-90°	9.7	1.3
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°	281.0	37.1
0°-40°	428.4	56.6
0°-60°	652.7	86.2
0°-90°	757.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	757.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	413	413	413	413	413	
5°	399	405	404	407	410	37
15°	345	354	362	379	391	97
25°	276	286	300	324	345	127
35°	199	210	230	260	289	124
45°	120	131	158	198	230	94
55°	78	80	95	135	162	70
65°	50	51	59	72	88	50
75°	27	30	30	31	30	29
85°	8	10	9	9	7	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	412.6	412.6	412.6	412.6	412.6
2.5°	407.9	413.0	409.3	410.1	410.4
5°	399.1	404.6	403.9	407.1	410.4
7.5°	387.8	394.4	395.8	402.4	407.9
10°	374.6	381.9	385.6	396.2	403.1
12.5°	360.8	368.1	374.6	388.2	398.0
15°	345.4	353.8	362.2	378.7	390.7
17.5°	329.4	338.1	348.7	366.6	380.8
20°	312.6	321.3	333.7	353.1	369.9
22.5°	294.7	304.5	317.7	338.5	358.2
25°	276.4	286.3	300.5	323.5	345.1
27.5°	257.4	267.7	283.0	308.5	331.6
30°	238.1	249.0	265.5	292.5	317.3
32.5°	218.4	230.0	247.6	276.4	303.4
35°	199.4	210.3	229.7	260.3	288.8
37.5°	179.7	190.6	211.4	244.6	274.2
40°	158.5	170.5	193.9	228.2	259.3
42.5°	138.8	150.8	176.0	212.5	245.0
45°	119.8	131.1	158.1	197.5	230.0
47.5°	105.2	113.2	140.2	182.9	214.0
50°	95.3	99.0	123.4	166.9	196.8
52.5°	86.5	89.5	108.1	150.8	180.0
55°	78.1	80.3	94.9	134.7	162.5
57.5°	70.8	71.9	83.3	118.7	143.5
60°	63.2	64.6	74.5	102.2	124.9
62.5°	57.0	57.7	66.8	86.5	106.3
65°	50.0	51.1	59.2	71.6	88.4
67.5°	43.8	45.6	51.1	58.4	69.7
70°	38.0	40.5	43.8	47.5	53.7
72.5°	32.5	35.4	37.2	38.7	37.6
75°	27.0	30.3	30.3	30.7	29.6
77.5°	21.9	24.8	24.5	24.1	22.6
80°	16.8	19.4	18.6	18.3	16.8
82.5°	12.4	14.2	13.5	13.1	11.3
85°	7.7	9.5	9.1	8.8	7.3
87.5°	3.7	5.5	5.1	4.7	3.3
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	10.90	12.39	11.27	12.70	13.02	14.65	16.13	15.01	16.45	16.76
	3H	12.57	13.90	12.95	14.23	14.59	15.77	17.10	16.15	17.43	17.80
	4H	13.24	14.49	13.64	14.84	15.22	16.07	17.32	16.47	17.67	18.05
	6H	13.75	14.90	14.16	15.27	15.66	16.27	17.42	16.68	17.79	18.18
	8H	13.92	15.02	14.35	15.41	15.81	16.32	17.42	16.75	17.81	18.21
	12H	14.04	15.09	14.47	15.47	15.90	16.36	17.41	16.79	17.79	18.22
4H	2H	11.70	12.95	12.10	13.30	13.68	14.81	16.06	15.21	16.41	16.79
	3H	13.57	14.60	13.98	15.01	15.41	16.14	17.18	16.55	17.58	17.98
	4H	14.37	15.31	14.81	15.72	16.16	16.56	17.49	16.99	17.91	18.35
	6H	15.02	15.83	15.48	16.27	16.73	16.88	17.69	17.34	18.13	18.59
	8H	15.24	16.00	15.70	16.44	16.91	16.98	17.73	17.44	18.18	18.64
	12H	15.41	16.08	15.89	16.56	17.03	17.05	17.72	17.53	18.20	18.67
8H	4H	14.72	15.48	15.19	15.92	16.39	16.69	17.45	17.16	17.89	18.36
	6H	15.51	16.14	16.01	16.63	17.11	17.11	17.74	17.61	18.23	18.71
	8H	15.83	16.39	16.35	16.90	17.39	17.27	17.83	17.78	18.34	18.83
	12H	16.09	16.59	16.60	17.08	17.65	17.41	17.90	17.92	18.40	18.96
12H	4H	14.75	15.43	15.24	15.91	16.38	16.70	17.37	17.18	17.85	18.32
	6H	15.57	16.14	16.09	16.65	17.14	17.13	17.70	17.65	18.21	18.69
	8H	15.96	16.45	16.47	16.95	17.51	17.34	17.84	17.85	18.33	18.90