

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: P1060383

Luminaire Tested: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060383
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

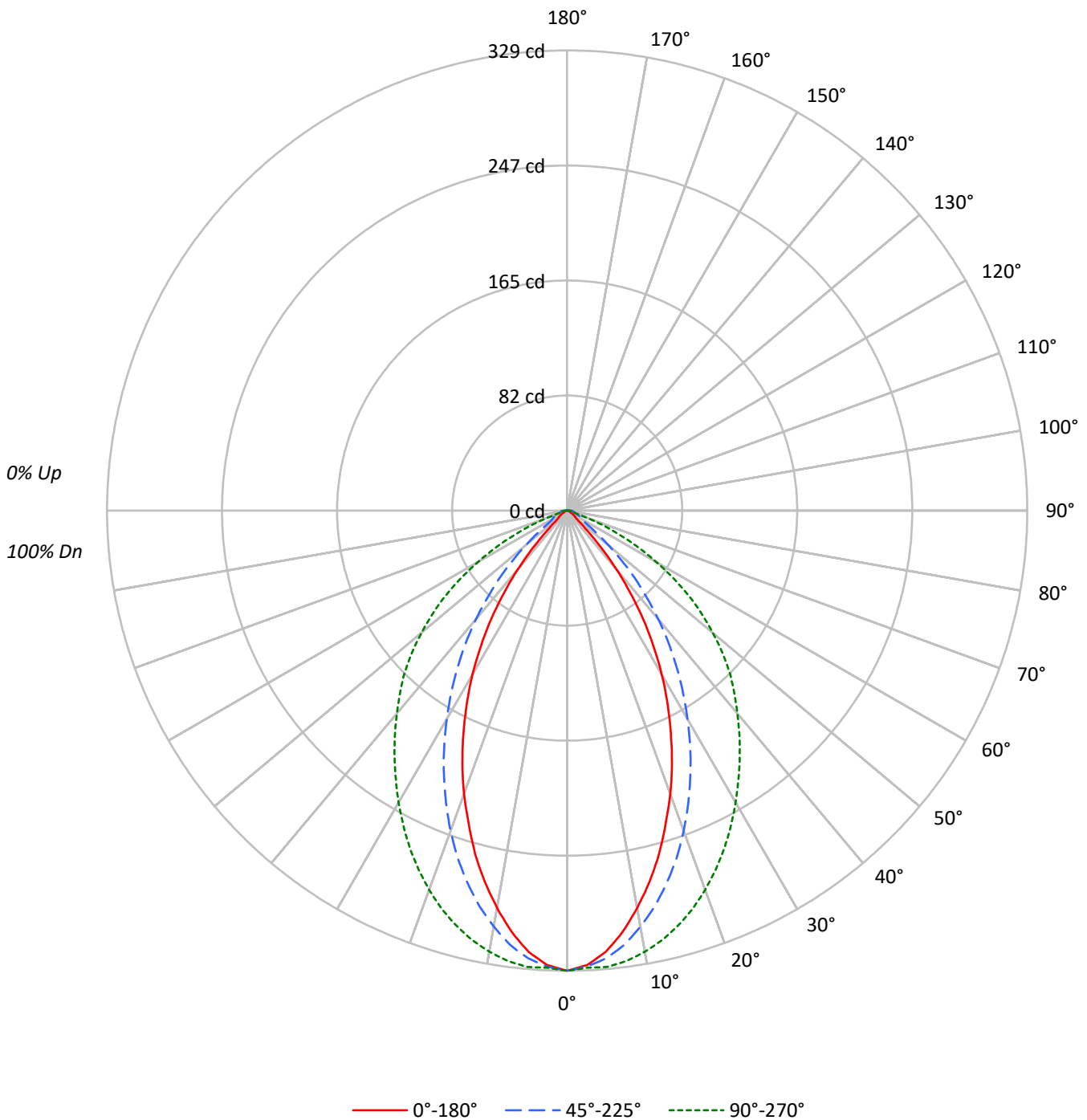
Lumens per Lamp: N/A
Luminaire Lumens: 414.7 lumens
Efficiency: N/A
Efficacy: 33.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1060383

CATALOG NUMBER: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot



TEST NUMBER: P1060383

CATALOG NUMBER: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81			81	
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72			72	
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65			65	
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59			59	
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54			54	
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49			49	
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45			45	
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42			42	
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39			39	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2833	2833	2833
5°	2738	2777	2831
10°	2523	2641	2800
15°	2265	2455	2737
20°	1975	2233	2644
25°	1666	1981	2528
30°	1344	1712	2396
35°	994	1433	2261
40°	616	1142	2127
45°	245	833	2003
50°	109	522	1821
55°	87	273	1594
60°	60	207	1271
65°	39	204	874
70°	38	184	408
75°	50	180	180
80°	74	208	208
85°	148	415	306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2003 cd/sqm



TEST NUMBER: P1060383

CATALOG NUMBER: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	7.3
10°-20°	77.9	18.8
20°-30°	98.3	23.7
30°-40°	90.2	21.8
40°-50°	61.4	14.8
50°-60°	33.5	8.1
60°-70°	14.5	3.5
70°-80°	5.3	1.3
80°-90°	3.4	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°	206.4	49.8
0°-40°	296.6	71.5
0°-60°	391.5	94.4
0°-90°	414.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	414.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	329	329	329	329	329	
5°	317	321	321	325	328	29
15°	254	263	275	295	307	71
25°	175	188	208	242	266	80
35°	95	108	136	180	215	58
45°	20	34	68	121	164	19
55°	6	6	18	67	106	5
65°	2	3	10	21	43	2
75°	2	5	5	5	5	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



TEST NUMBER: P1060383

CATALOG NUMBER: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	329.0	329.0	329.0	329.0	329.0
2.5°	325.2	329.0	326.3	327.1	327.1
5°	316.7	320.9	321.3	324.8	327.5
7.5°	303.9	310.1	313.2	320.2	324.8
10°	288.5	295.8	302.0	314.0	320.2
12.5°	271.9	280.4	289.7	305.5	314.4
15°	254.1	263.0	275.4	295.1	307.0
17.5°	234.4	245.2	260.3	283.9	298.5
20°	215.5	226.3	243.7	270.3	288.5
22.5°	195.8	207.0	226.3	256.1	277.7
25°	175.3	187.7	208.5	241.8	266.1
27.5°	155.3	168.4	190.4	226.7	253.7
30°	135.2	148.3	172.2	211.3	241.0
32.5°	114.7	128.2	154.1	195.0	227.9
35°	94.6	108.5	136.3	179.6	215.1
37.5°	74.2	88.8	118.6	164.5	202.4
40°	54.8	69.5	101.6	149.5	189.2
42.5°	36.7	51.4	84.2	134.8	176.9
45°	20.1	33.6	68.4	121.3	164.5
47.5°	10.8	18.5	52.9	108.1	150.6
50°	8.1	10.0	39.0	94.2	135.9
52.5°	7.0	7.7	27.0	79.6	121.3
55°	5.8	6.2	18.2	66.8	106.2
57.5°	4.6	5.0	13.5	54.1	90.0
60°	3.5	4.2	12.0	41.7	73.8
62.5°	2.7	3.5	11.2	30.5	58.3
65°	1.9	2.7	10.0	20.9	42.9
67.5°	1.9	3.1	8.5	13.5	29.0
70°	1.5	4.2	7.3	8.9	16.2
72.5°	1.5	4.6	6.2	6.2	6.2
75°	1.5	5.0	5.4	5.4	5.4
77.5°	1.5	4.6	5.0	4.6	4.6
80°	1.5	4.2	4.2	4.2	4.2
82.5°	1.5	3.9	4.2	4.2	3.5
85°	1.5	3.5	4.2	4.2	3.1
87.5°	1.2	3.5	3.9	3.9	2.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060383
 CATALOG NUMBER: S124RDRP-S350D830-X4F0-XX-UDD-BVL-W

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	12.03	13.31	12.40	13.62	13.94
	3H	0.00	0.00	0.00	0.00	0.00	12.41	13.54	12.79	13.87	14.23
	4H	0.00	0.00	0.00	0.00	0.00	12.38	13.44	12.79	13.79	14.17
	6H	0.00	0.00	0.00	0.00	0.13	12.37	13.34	12.79	13.71	14.10
	8H	0.00	0.00	0.00	0.29	0.70	12.37	13.29	12.80	13.68	14.08
	12H	0.00	0.52	0.08	0.90	1.34	12.38	13.26	12.82	13.64	14.07
4H	2H	0.00	0.00	0.00	0.00	0.03	11.84	12.89	12.24	13.24	13.63
	3H	0.00	0.68	0.23	1.08	1.49	12.26	13.12	12.67	13.52	13.93
	4H	1.11	1.88	1.55	2.30	2.74	12.26	13.03	12.69	13.45	13.89
	6H	2.22	2.88	2.69	3.33	3.80	12.30	12.96	12.76	13.41	13.87
	8H	2.73	3.35	3.20	3.80	4.27	12.32	12.94	12.79	13.39	13.86
	12H	3.28	3.82	3.76	4.31	4.78	12.39	12.93	12.88	13.42	13.89
8H	4H	2.20	2.82	2.67	3.27	3.74	12.17	12.79	12.64	13.23	13.71
	6H	3.73	4.23	4.23	4.73	5.21	12.24	12.75	12.75	13.25	13.73
	8H	4.55	5.00	5.07	5.52	6.01	12.32	12.78	12.85	13.30	13.79
	12H	5.38	5.79	5.90	6.28	6.85	12.49	12.90	13.01	13.39	13.96
12H	4H	2.39	2.93	2.87	3.42	3.89	12.13	12.68	12.62	13.16	13.64
	6H	4.08	4.54	4.60	5.05	5.55	12.22	12.67	12.74	13.19	13.68
	8H	5.10	5.51	5.62	6.00	6.57	12.35	12.75	12.87	13.25	13.82