

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: P1059201

Luminaire Tested: S123RDRP-S340D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059201
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

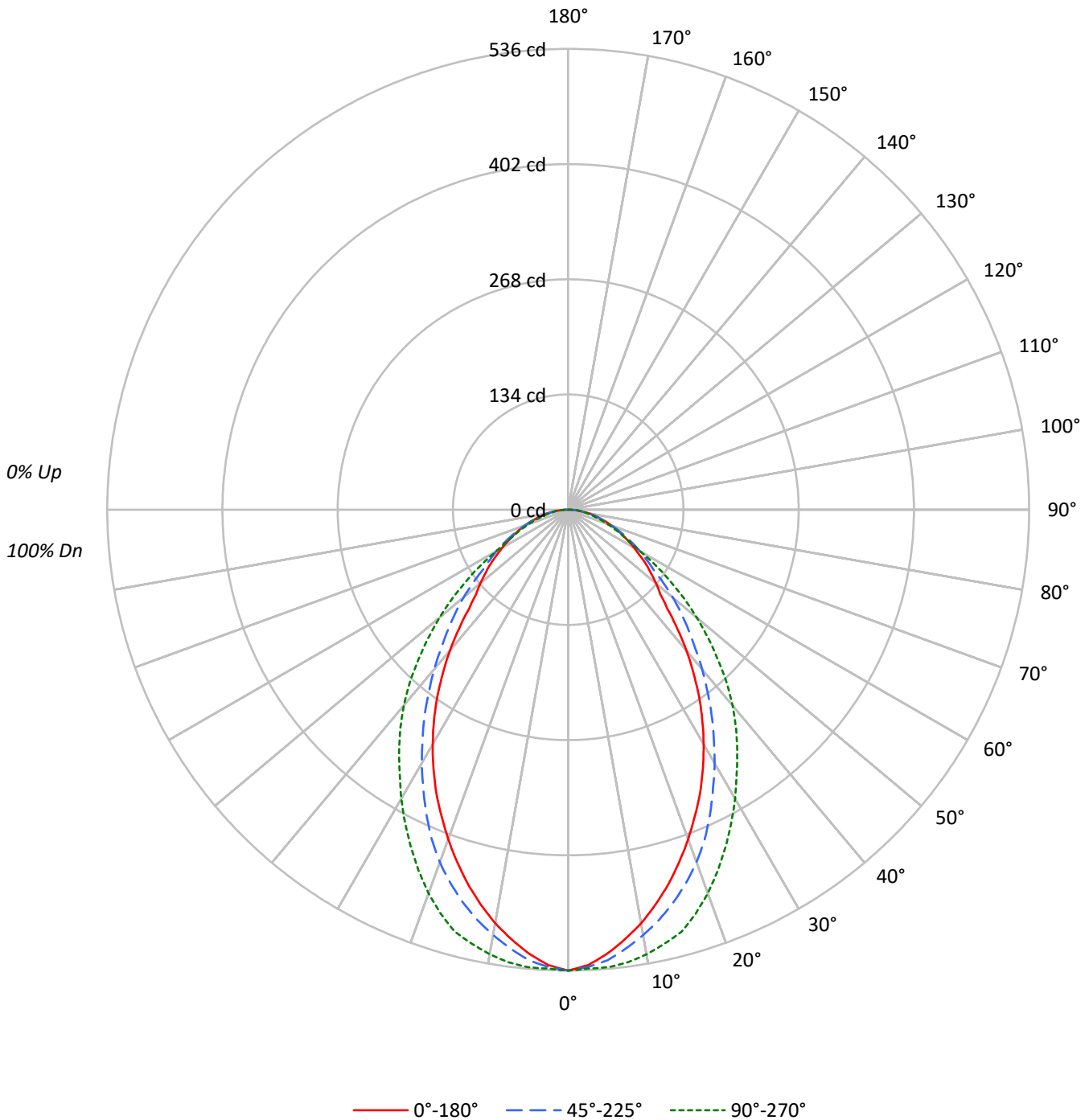
Lumens per Lamp: N/A
Luminaire Lumens: 942.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059201

CATALOG NUMBER: S123RDRP-S340D850-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059201

CATALOG NUMBER: S123RDRP-S340D850-X4F0-XX-UDD-WVL-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	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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87													87															
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75													75															
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66													66															
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58													58															
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51													51															
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46													46															
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41													41															
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38													38															
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34													34															
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32													32															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6295	6295	6295
5°	6112	6199	6297
10°	5825	5990	6260
15°	5479	5749	6180
20°	5096	5453	5932
25°	4704	5057	5606
30°	4272	4617	5261
35°	3803	4166	4914
40°	3282	3713	4554
45°	2712	3286	4083
50°	2435	2899	3564
55°	2258	2475	2956
60°	2081	2255	2264
65°	1937	2039	1898
70°	1823	1854	1662
75°	1715	1651	1465
80°	1623	1494	1373
85°	1549	1684	1549

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4083 cd/sqm



TEST NUMBER: P1059201

CATALOG NUMBER: S123RDRP-S340D850-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	5.3
10°-20°	133.8	14.2
20°-30°	181.0	19.2
30°-40°	186.0	19.7
40°-50°	156.2	16.6
50°-60°	112.0	11.9
60°-70°	71.3	7.6
70°-80°	39.2	4.2
80°-90°	13.1	1.4
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°	364.4	38.7
0°-40°	550.3	58.4
0°-60°	818.5	86.9
0°-90°	942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	518	528	526	530	534	49
15°	451	463	473	493	508	126
25°	363	377	390	412	433	166
35°	265	280	291	316	343	165
45°	163	178	198	226	246	129
55°	110	113	121	137	144	98
65°	70	74	73	69	68	69
75°	38	42	36	34	32	40
85°	12	12	12	13	12	13
90°	0	0	0	0	0	

TEST NUMBER: P1059201

CATALOG NUMBER: S123RDRP-S340D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.1	536.1	536.1	536.1	536.1
2.5°	530.1	537.4	532.4	532.8	534.2
5°	518.5	527.8	525.9	529.6	534.2
7.5°	504.2	514.4	514.8	523.6	531.0
10°	488.5	499.2	502.4	515.8	525.0
12.5°	470.1	481.6	488.5	505.2	517.1
15°	450.7	463.2	472.9	493.2	508.4
17.5°	429.5	442.9	455.3	477.0	492.7
20°	407.8	422.1	436.4	456.7	474.7
22.5°	385.2	400.0	414.7	434.6	454.4
25°	363.1	376.9	390.3	411.5	432.7
27.5°	339.1	353.4	364.9	388.4	410.6
30°	315.1	329.4	340.5	364.9	388.0
32.5°	290.2	304.9	315.1	340.5	364.4
35°	265.3	279.6	290.6	316.5	342.8
37.5°	239.0	254.7	265.7	294.8	320.6
40°	214.1	228.8	242.2	272.6	297.1
42.5°	188.2	203.4	218.7	250.0	272.6
45°	163.3	177.6	197.9	226.5	245.9
47.5°	145.3	154.5	178.1	202.1	220.5
50°	133.3	137.0	158.7	179.9	195.1
52.5°	121.3	124.1	138.9	158.2	169.8
55°	110.3	112.6	120.9	137.0	144.4
57.5°	98.3	100.6	107.5	116.7	120.9
60°	88.6	90.4	96.0	97.3	96.4
62.5°	78.9	81.7	84.4	81.2	79.8
65°	69.7	73.8	73.4	69.2	68.3
67.5°	61.4	65.5	63.2	59.0	57.7
70°	53.1	57.2	54.0	49.8	48.4
72.5°	45.2	49.8	44.7	41.1	40.1
75°	37.8	41.5	36.4	33.7	32.3
77.5°	30.9	33.7	29.1	26.8	25.8
80°	24.0	25.8	22.1	20.8	20.3
82.5°	17.5	18.5	16.1	17.1	16.6
85°	11.5	12.0	12.5	12.9	11.5
87.5°	5.5	7.8	7.8	7.4	6.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059201
 CATALOG NUMBER: S123RDRP-S340D850-X4F0-XX-UDD-WVL-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	13.58	15.04	13.94	15.35	15.67	14.65	16.11	15.01	16.42	16.74
	3H	15.28	16.59	15.65	16.91	17.28	15.73	17.04	16.11	17.37	17.73
	4H	15.93	17.16	16.33	17.51	17.89	16.13	17.36	16.53	17.71	18.09
	6H	16.43	17.57	16.84	17.93	18.33	16.44	17.57	16.85	17.94	18.33
	8H	16.60	17.68	17.03	18.07	18.47	16.58	17.65	17.00	18.04	18.45
	12H	16.73	17.76	17.16	18.14	18.57	16.70	17.73	17.13	18.11	18.54
4H	2H	14.18	15.41	14.58	15.76	16.14	15.05	16.28	15.45	16.63	17.01
	3H	16.11	17.13	16.52	17.53	17.93	16.37	17.39	16.78	17.79	18.19
	4H	16.92	17.83	17.35	18.25	18.69	16.89	17.80	17.32	18.22	18.66
	6H	17.57	18.36	18.02	18.81	19.27	17.32	18.12	17.78	18.56	19.02
	8H	17.79	18.53	18.25	18.98	19.44	17.51	18.25	17.97	18.70	19.17
	12H	17.96	18.62	18.44	19.10	19.57	17.69	18.36	18.18	18.84	19.31
8H	4H	17.15	17.90	17.62	18.34	18.81	17.13	17.88	17.60	18.32	18.79
	6H	17.94	18.56	18.44	19.05	19.53	17.68	18.30	18.18	18.79	19.27
	8H	18.26	18.81	18.77	19.32	19.81	17.96	18.51	18.47	19.02	19.51
	12H	18.52	19.01	19.03	19.51	20.07	18.25	18.74	18.76	19.23	19.80
12H	4H	17.17	17.83	17.65	18.31	18.78	17.16	17.82	17.64	18.30	18.77
	6H	17.98	18.53	18.49	19.04	19.53	17.73	18.29	18.25	18.80	19.29
	8H	18.35	18.84	18.86	19.33	19.90	18.07	18.56	18.58	19.06	19.62