

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: P1059181

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

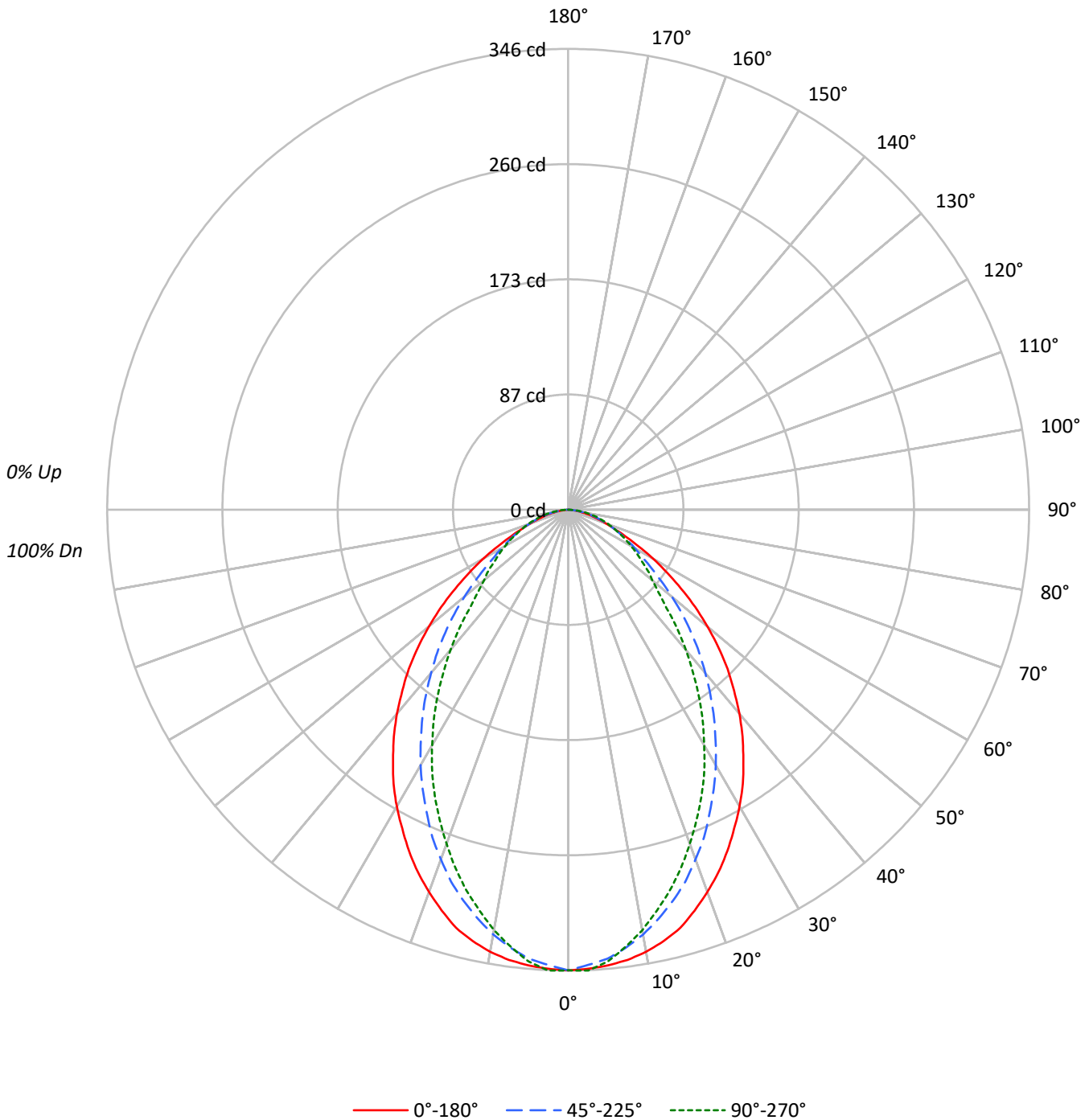
Lumens per Lamp: N/A
Luminaire Lumens: 604.9 lumens
Efficiency: N/A
Efficacy: 48.4 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059181

CATALOG NUMBER: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1059181

CATALOG NUMBER: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B

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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4062	4062	4062
5°	4048	3989	4014
10°	4019	3861	3822
15°	3952	3694	3594
20°	3818	3490	3335
25°	3663	3253	3069
30°	3489	3005	2767
35°	3284	2735	2450
40°	3066	2453	2109
45°	2810	2167	1732
50°	2490	1860	1503
55°	2119	1558	1378
60°	1728	1357	1280
65°	1317	1200	1189
70°	1027	1071	1112
75°	830	962	1039
80°	615	784	953
85°	337	498	835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2810 cd/sqm



TEST NUMBER: P1059181

CATALOG NUMBER: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	5.3
10°-20°	86.4	14.3
20°-30°	117.4	19.4
30°-40°	121.7	20.1
40°-50°	102.7	17.0
50°-60°	72.9	12.0
60°-70°	44.5	7.4
70°-80°	22.1	3.7
80°-90°	5.0	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°	235.9	39.0
0°-40°	357.6	59.1
0°-60°	533.2	88.1
0°-90°	604.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	604.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	343	343	338	340	340	33
15°	325	319	304	298	296	91
25°	283	270	251	242	237	130
35°	229	212	191	178	171	143
45°	169	151	130	113	104	130
55°	104	93	76	69	67	93
65°	47	46	43	43	43	48
75°	18	20	21	22	23	20
85°	2	3	4	5	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1059181

CATALOG NUMBER: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	345.9	345.9	345.9	345.9	345.9
2.5°	345.0	345.4	342.1	345.9	346.3
5°	343.4	343.4	338.4	340.5	340.5
7.5°	340.9	340.0	331.7	331.7	330.9
10°	337.1	334.6	323.8	321.8	320.5
12.5°	331.7	327.6	314.3	310.5	308.0
15°	325.1	318.8	303.9	298.5	295.6
17.5°	315.5	309.3	292.7	285.2	281.8
20°	305.5	296.4	279.3	271.9	266.9
22.5°	294.7	283.1	266.5	257.3	251.9
25°	282.7	270.2	251.1	241.9	236.9
27.5°	269.8	256.1	236.5	226.1	221.2
30°	257.3	241.5	221.6	209.9	204.1
32.5°	244.0	226.1	205.8	193.7	187.9
35°	229.1	211.6	190.8	177.5	170.9
37.5°	214.9	197.0	175.4	161.3	153.8
40°	200.0	182.1	160.0	145.5	137.6
42.5°	184.2	167.1	145.5	128.5	121.0
45°	169.2	151.3	130.5	112.7	104.3
47.5°	153.0	136.3	116.0	97.7	91.9
50°	136.3	121.0	101.8	85.2	82.3
52.5°	120.1	107.3	87.7	76.9	75.7
55°	103.5	92.7	76.1	69.4	67.3
57.5°	88.1	80.2	65.3	61.9	61.1
60°	73.6	66.9	57.8	55.7	54.5
62.5°	59.4	55.7	50.3	49.5	48.6
65°	47.4	45.7	43.2	43.2	42.8
67.5°	37.4	37.4	37.0	37.8	37.4
70°	29.9	30.3	31.2	32.0	32.4
72.5°	23.7	24.9	25.8	27.0	27.4
75°	18.3	19.5	21.2	22.0	22.9
77.5°	13.3	14.5	16.2	17.5	18.3
80°	9.1	10.0	11.6	13.3	14.1
82.5°	5.8	6.2	7.5	9.1	10.0
85°	2.5	2.9	3.7	5.4	6.2
87.5°	0.0	0.0	0.4	1.7	2.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1059181
 CATALOG NUMBER: S123RDRP-S340D835-X4F0-XX-UDD-WVL-B

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	13.68	15.13	14.04	15.44	15.75	11.77	13.22	12.14	13.54	13.85
	3H	14.57	15.87	14.95	16.20	16.56	13.34	14.64	13.72	14.97	15.33
	4H	14.86	16.07	15.26	16.42	16.80	13.94	15.15	14.34	15.50	15.88
	6H	15.00	16.12	15.42	16.49	16.88	14.39	15.51	14.81	15.88	16.27
	8H	15.03	16.09	15.45	16.48	16.88	14.54	15.60	14.97	15.99	16.40
	12H	15.02	16.04	15.45	16.42	16.85	14.64	15.66	15.07	16.04	16.47
4H	2H	13.92	15.13	14.32	15.48	15.86	12.31	13.53	12.71	13.87	14.25
	3H	15.03	16.03	15.44	16.43	16.84	14.09	15.09	14.50	15.49	15.89
	4H	15.42	16.32	15.86	16.74	17.18	14.80	15.70	15.23	16.11	16.55
	6H	15.66	16.44	16.12	16.89	17.35	15.37	16.15	15.83	16.59	17.06
	8H	15.71	16.43	16.17	16.88	17.35	15.56	16.29	16.03	16.74	17.20
	12H	15.71	16.36	16.20	16.84	17.31	15.70	16.35	16.18	16.83	17.30
8H	4H	15.58	16.31	16.05	16.75	17.22	15.01	15.74	15.47	16.18	16.65
	6H	15.89	16.49	16.39	16.98	17.46	15.68	16.28	16.18	16.78	17.26
	8H	15.97	16.50	16.48	17.02	17.51	15.94	16.48	16.46	16.99	17.48
	12H	16.00	16.48	16.51	16.97	17.54	16.15	16.62	16.66	17.12	17.68
12H	4H	15.58	16.23	16.07	16.71	17.18	15.01	15.65	15.49	16.13	16.61
	6H	15.91	16.44	16.42	16.96	17.45	15.69	16.23	16.21	16.74	17.23
	8H	16.02	16.49	16.53	16.99	17.55	16.00	16.47	16.51	16.96	17.53