

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059010

Luminaire Tested: S123RDR-S1000D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059010
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: S123RDR-S1000D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

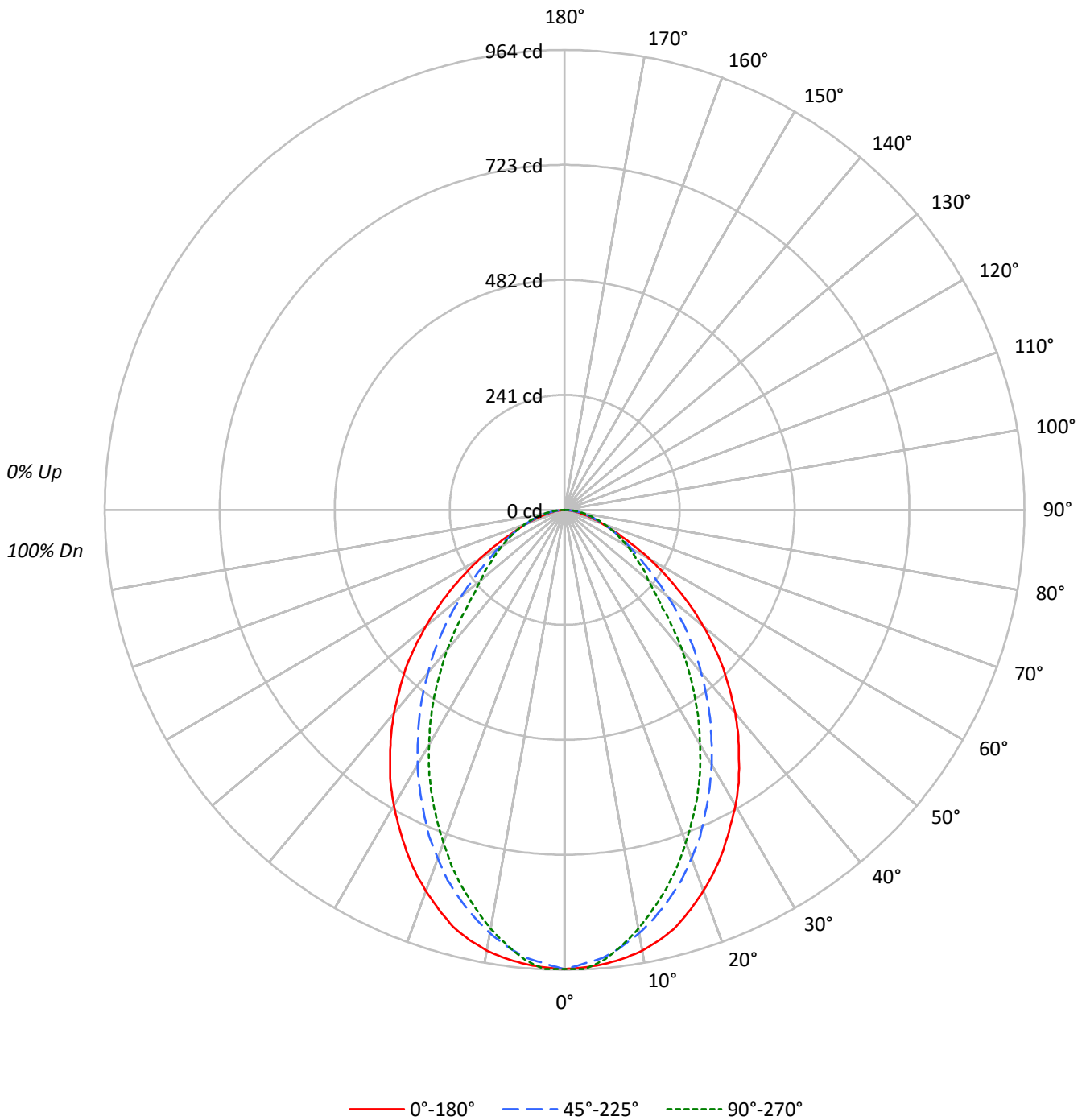
Lumens per Lamp: N/A
Luminaire Lumens: 1683.3 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): 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: P1059010

CATALOG NUMBER: S123RDR-S1000D830-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1059010

CATALOG NUMBER: S123RDR-S1000D830-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	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°	11302	11302	11302
5°	11263	11099	11167
10°	11187	10744	10635
15°	10997	10280	9999
20°	10624	9714	9281
25°	10191	9053	8543
30°	9710	8360	7702
35°	9137	7612	6815
40°	8529	6827	5869
45°	7818	6031	4822
50°	6931	5177	4183
55°	5896	4334	3837
60°	4810	3776	3558
65°	3665	3343	3312
70°	2860	2980	3097
75°	2309	2677	2885
80°	1718	2191	2658
85°	930	1401	2344

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



TEST NUMBER: P1059010

CATALOG NUMBER: S123RDR-S1000D830-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	5.3
10°-20°	240.4	14.3
20°-30°	326.8	19.4
30°-40°	338.7	20.1
40°-50°	285.7	17.0
50°-60°	202.8	12.0
60°-70°	124.0	7.4
70°-80°	61.7	3.7
80°-90°	14.0	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°	656.5	39.0
0°-40°	995.2	59.1
0°-60°	1483.7	88.1
0°-90°	1683.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1683.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	962	962	962	962	962	
5°	956	956	942	947	947	91
15°	905	887	846	831	822	254
25°	787	752	699	673	659	362
35°	637	589	531	494	475	399
45°	471	421	363	314	290	362
55°	288	258	212	193	187	259
65°	132	127	120	120	119	135
75°	51	54	59	61	64	55
85°	7	8	10	15	17	10
90°	0	0	0	0	0	



TEST NUMBER: P1059010

CATALOG NUMBER: S123RDR-S1000D830-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	962.5	962.5	962.5	962.5	962.5
2.5°	960.1	961.3	952.0	962.5	963.6
5°	955.5	955.5	941.6	947.4	947.4
7.5°	948.6	946.3	923.1	923.1	920.8
10°	938.2	931.2	901.1	895.4	891.9
12.5°	923.1	911.6	874.5	864.1	857.2
15°	904.6	887.3	845.6	830.6	822.5
17.5°	878.0	860.7	814.4	793.6	784.3
20°	850.2	824.8	777.4	756.5	742.7
22.5°	820.2	787.8	741.5	716.1	701.0
25°	786.6	751.9	698.7	673.3	659.4
27.5°	750.8	712.6	658.2	629.3	615.4
30°	716.1	672.1	616.6	584.2	568.0
32.5°	679.0	629.3	572.6	539.1	522.9
35°	637.4	588.8	531.0	494.0	475.4
37.5°	598.1	548.3	488.2	448.8	428.0
40°	556.4	506.7	445.4	404.9	382.9
42.5°	512.5	465.0	404.9	357.5	336.6
45°	470.8	421.1	363.2	313.5	290.4
47.5°	425.7	379.4	322.7	271.8	255.7
50°	379.4	336.6	283.4	237.1	229.0
52.5°	334.3	298.5	244.1	214.0	210.5
55°	288.0	258.0	211.7	193.2	187.4
57.5°	245.2	223.3	181.6	172.4	170.0
60°	204.8	186.2	160.8	155.0	151.5
62.5°	165.4	155.0	140.0	137.7	135.3
65°	131.9	127.2	120.3	120.3	119.2
67.5°	104.1	104.1	103.0	105.3	104.1
70°	83.3	84.4	86.8	89.1	90.2
72.5°	65.9	69.4	71.7	75.2	76.3
75°	50.9	54.4	59.0	61.3	63.6
77.5°	37.0	40.5	45.1	48.6	50.9
80°	25.4	27.8	32.4	37.0	39.3
82.5°	16.2	17.4	20.8	25.4	27.8
85°	6.9	8.1	10.4	15.0	17.4
87.5°	0.0	0.0	1.2	4.6	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)