

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: P1059012

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059012  
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: S123RDR-S1000D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

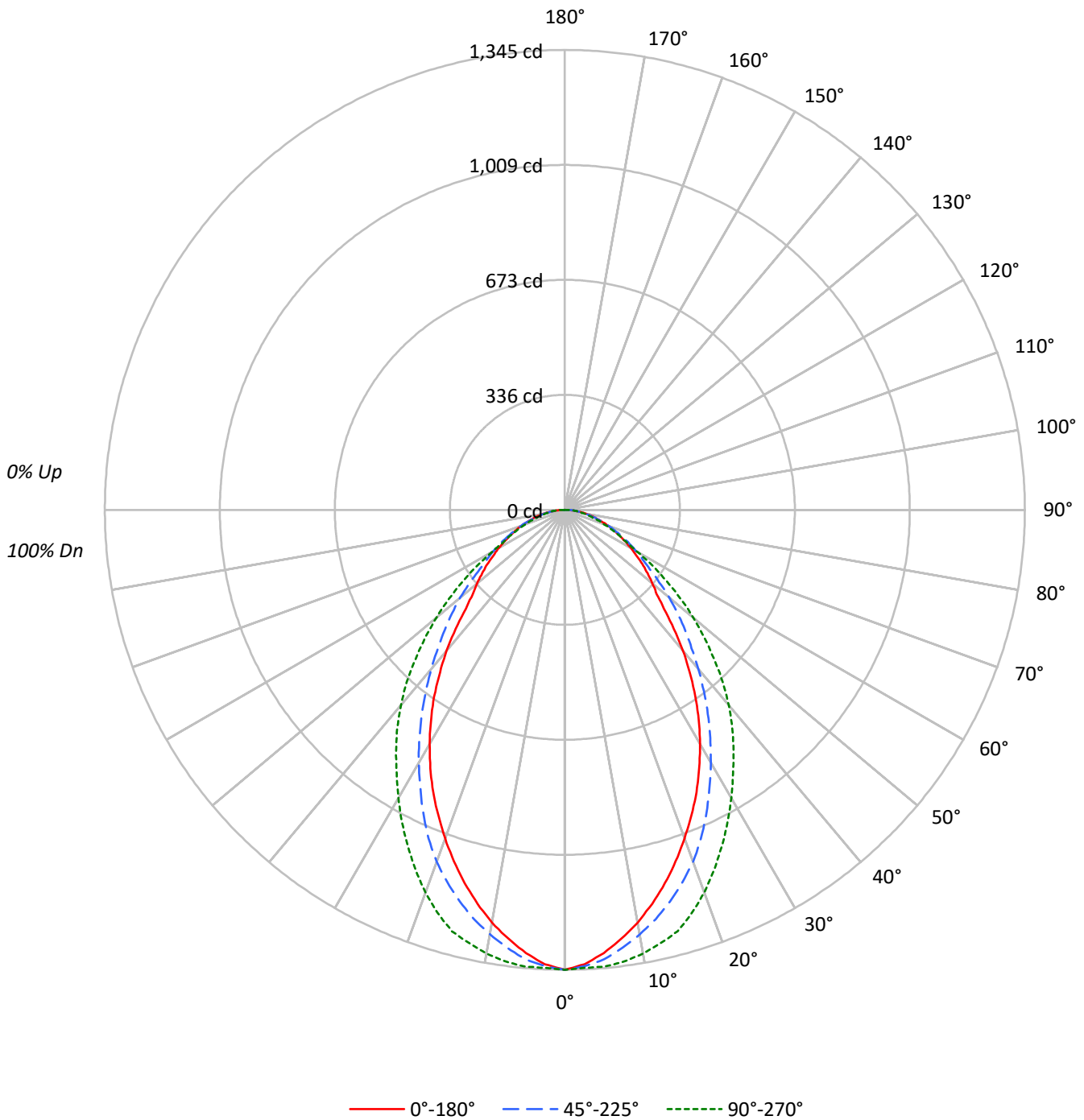
Lumens per Lamp: N/A  
Luminaire Lumens: 2363.6 lumens  
Efficiency: N/A  
Efficacy: 67.5 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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

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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	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°	15795	15795	15795
5°	15336	15555	15801
10°	14617	15031	15707
15°	13749	14424	15508
20°	12787	13684	14885
25°	11803	12688	14068
30°	10720	11583	13200
35°	9541	10454	12329
40°	8233	9315	11428
45°	6805	8247	10246
50°	6111	7274	8946
55°	5665	6209	7417
60°	5221	5655	5681
65°	4857	5115	4760
70°	4570	4649	4171
75°	4306	4147	3675
80°	4071	3760	3442
85°	3894	4217	3894

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10246 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.6	5.3
10°-20°	335.6	14.2
20°-30°	454.1	19.2
30°-40°	466.6	19.7
40°-50°	391.9	16.6
50°-60°	281.0	11.9
60°-70°	178.9	7.6
70°-80°	98.3	4.2
80°-90°	32.8	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°	914.3	38.7
0°-40°	1380.9	58.4
0°-60°	2053.7	86.9
0°-90°	2363.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2363.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1301	1324	1320	1329	1340	122
15°	1131	1162	1186	1238	1276	317
25°	911	946	979	1033	1086	418
35°	666	702	729	794	860	414
45°	410	446	497	568	617	324
55°	277	282	303	344	362	247
65°	175	185	184	174	171	174
75°	95	104	91	84	81	101
85°	29	30	31	32	29	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1345.1	1345.1	1345.1	1345.1	1345.1
2.5°	1330.1	1348.6	1335.9	1337.0	1340.5
5°	1301.1	1324.3	1319.6	1328.9	1340.5
7.5°	1265.2	1290.7	1291.9	1313.9	1332.4
10°	1225.9	1252.5	1260.6	1294.2	1317.3
12.5°	1179.6	1208.5	1225.9	1267.6	1297.7
15°	1131.0	1162.2	1186.5	1237.5	1275.7
17.5°	1077.7	1111.3	1142.5	1196.9	1236.3
20°	1023.3	1059.2	1095.1	1146.0	1191.2
22.5°	966.6	1003.6	1040.7	1090.4	1140.2
25°	911.0	945.7	979.3	1032.6	1085.8
27.5°	850.8	886.7	915.7	974.7	1030.3
30°	790.6	826.5	854.3	915.7	973.5
32.5°	728.1	765.2	790.6	854.3	914.5
35°	665.6	701.5	729.3	794.1	860.1
37.5°	599.6	639.0	666.8	739.7	804.5
40°	537.1	574.2	607.7	684.1	745.5
42.5°	472.3	510.5	548.7	627.4	684.1
45°	409.8	445.7	496.6	568.4	617.0
47.5°	364.6	387.8	446.8	507.0	553.3
50°	334.5	343.8	398.2	451.5	489.7
52.5°	304.4	311.4	348.4	397.1	426.0
55°	276.7	282.5	303.3	343.8	362.3
57.5°	246.6	252.4	269.7	292.9	303.3
60°	222.3	226.9	240.8	244.3	241.9
62.5°	197.9	204.9	211.8	203.7	200.3
65°	174.8	185.2	184.1	173.6	171.3
67.5°	154.0	164.4	158.6	148.2	144.7
70°	133.1	143.5	135.4	125.0	121.5
72.5°	113.4	125.0	112.3	103.0	100.7
75°	94.9	104.2	91.4	84.5	81.0
77.5°	77.6	84.5	72.9	67.1	64.8
80°	60.2	64.8	55.6	52.1	50.9
82.5°	44.0	46.3	40.5	42.8	41.7
85°	28.9	30.1	31.3	32.4	28.9
87.5°	13.9	19.7	19.7	18.5	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)