

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: P1059030

Luminaire Tested: S123RDR-S1000D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

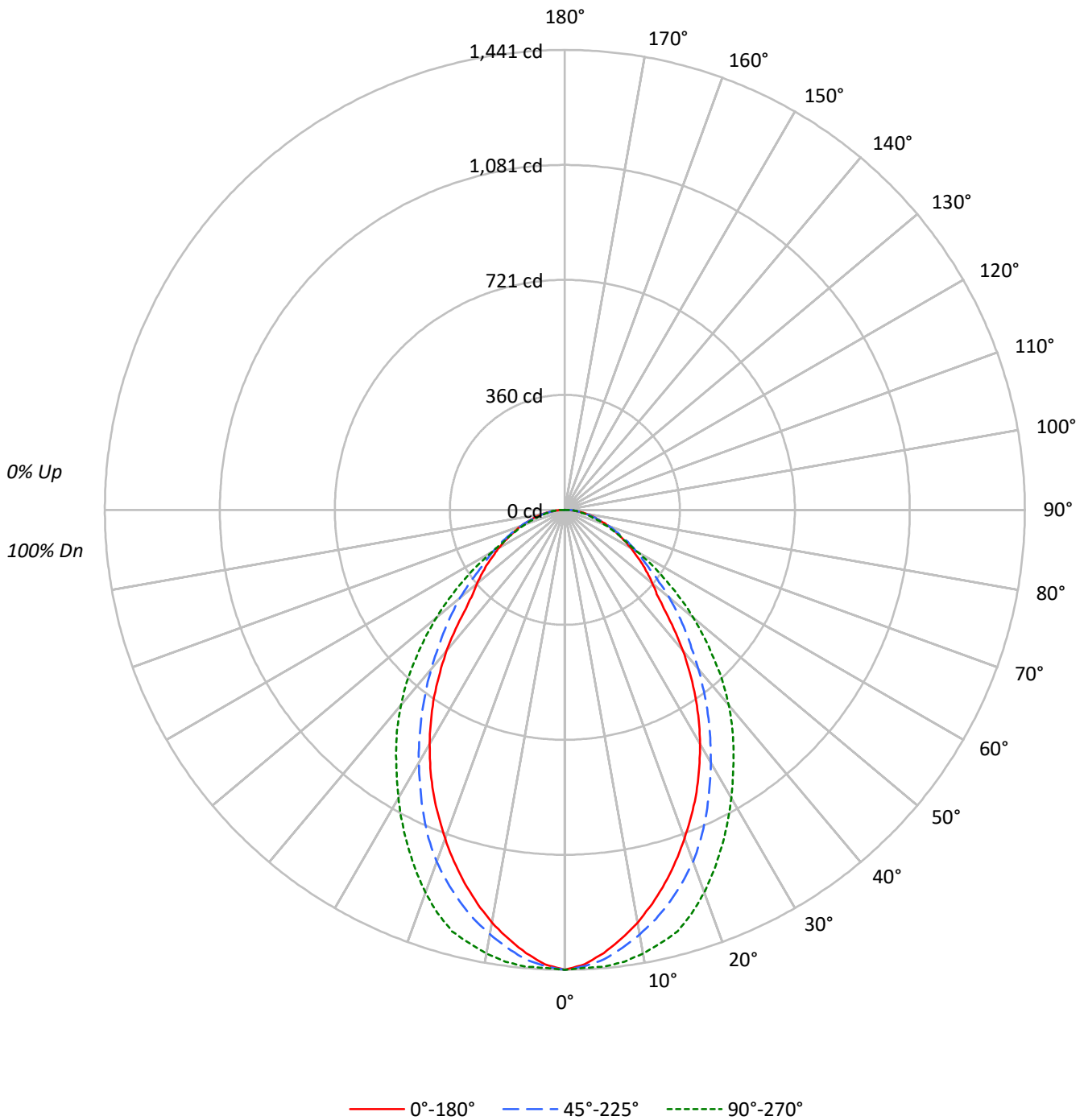
Test Method: LM-79-2019  
Report Number: P1059030  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1000D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2532.4 lumens  
Efficiency: N/A  
Efficacy: 72.4 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): 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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16923	16923	16923
5°	16433	16666	16929
10°	15660	16105	16829
15°	14730	15455	16616
20°	13701	14662	15947
25°	12647	13595	15073
30°	11486	12411	14143
35°	10224	11201	13210
40°	8822	9980	12243
45°	7292	8836	10978
50°	6547	7795	9583
55°	6068	6654	7947
60°	5592	6059	6087
65°	5204	5479	5101
70°	4896	4982	4470
75°	4614	4446	3938
80°	4362	4024	3692
85°	4177	4513	4177

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10978 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.5	5.3
10°-20°	359.6	14.2
20°-30°	486.5	19.2
30°-40°	499.9	19.7
40°-50°	419.9	16.6
50°-60°	301.0	11.9
60°-70°	191.6	7.6
70°-80°	105.3	4.2
80°-90°	35.1	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°	979.6	38.7
0°-40°	1479.5	58.4
0°-60°	2200.4	86.9
0°-90°	2532.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2532.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1394	1419	1414	1424	1436	131
15°	1212	1245	1271	1326	1367	340
25°	976	1013	1049	1106	1163	447
35°	713	752	781	851	922	444
45°	439	478	532	609	661	347
55°	296	303	325	368	388	265
65°	187	198	197	186	184	187
75°	102	112	98	90	87	108
85°	31	32	34	35	31	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1441.2	1441.2	1441.2	1441.2	1441.2
2.5°	1425.1	1444.9	1431.3	1432.5	1436.2
5°	1394.1	1418.9	1413.9	1423.8	1436.2
7.5°	1355.6	1382.9	1384.1	1407.7	1427.6
10°	1313.4	1342.0	1350.7	1386.6	1411.4
12.5°	1263.8	1294.8	1313.4	1358.1	1390.3
15°	1211.7	1245.2	1271.3	1325.8	1366.8
17.5°	1154.7	1190.7	1224.1	1282.4	1324.6
20°	1096.4	1134.8	1173.3	1227.9	1276.2
22.5°	1035.6	1075.3	1115.0	1168.3	1221.7
25°	976.1	1013.3	1049.3	1106.3	1163.4
27.5°	911.6	950.0	981.1	1044.3	1103.8
30°	847.1	885.6	915.3	981.1	1043.1
32.5°	780.1	819.8	847.1	915.3	979.8
35°	713.2	751.6	781.4	850.8	921.5
37.5°	642.5	684.6	714.4	792.5	862.0
40°	575.5	615.2	651.1	733.0	798.7
42.5°	506.0	547.0	587.9	672.2	733.0
45°	439.1	477.5	532.1	609.0	661.1
47.5°	390.7	415.5	478.7	543.2	592.8
50°	358.4	368.4	426.7	483.7	524.6
52.5°	326.2	333.6	373.3	425.4	456.4
55°	296.4	302.6	325.0	368.4	388.2
57.5°	264.2	270.4	289.0	313.8	325.0
60°	238.1	243.1	258.0	261.7	259.2
62.5°	212.1	219.5	227.0	218.3	214.6
65°	187.3	198.4	197.2	186.0	183.6
67.5°	165.0	176.1	169.9	158.8	155.0
70°	142.6	153.8	145.1	133.9	130.2
72.5°	121.5	133.9	120.3	110.4	107.9
75°	101.7	111.6	98.0	90.5	86.8
77.5°	83.1	90.5	78.1	71.9	69.5
80°	64.5	69.5	59.5	55.8	54.6
82.5°	47.1	49.6	43.4	45.9	44.6
85°	31.0	32.2	33.5	34.7	31.0
87.5°	14.9	21.1	21.1	19.8	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)