

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1059777

Luminaire Tested: S123RDR-H775D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059777  
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-H775D927-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

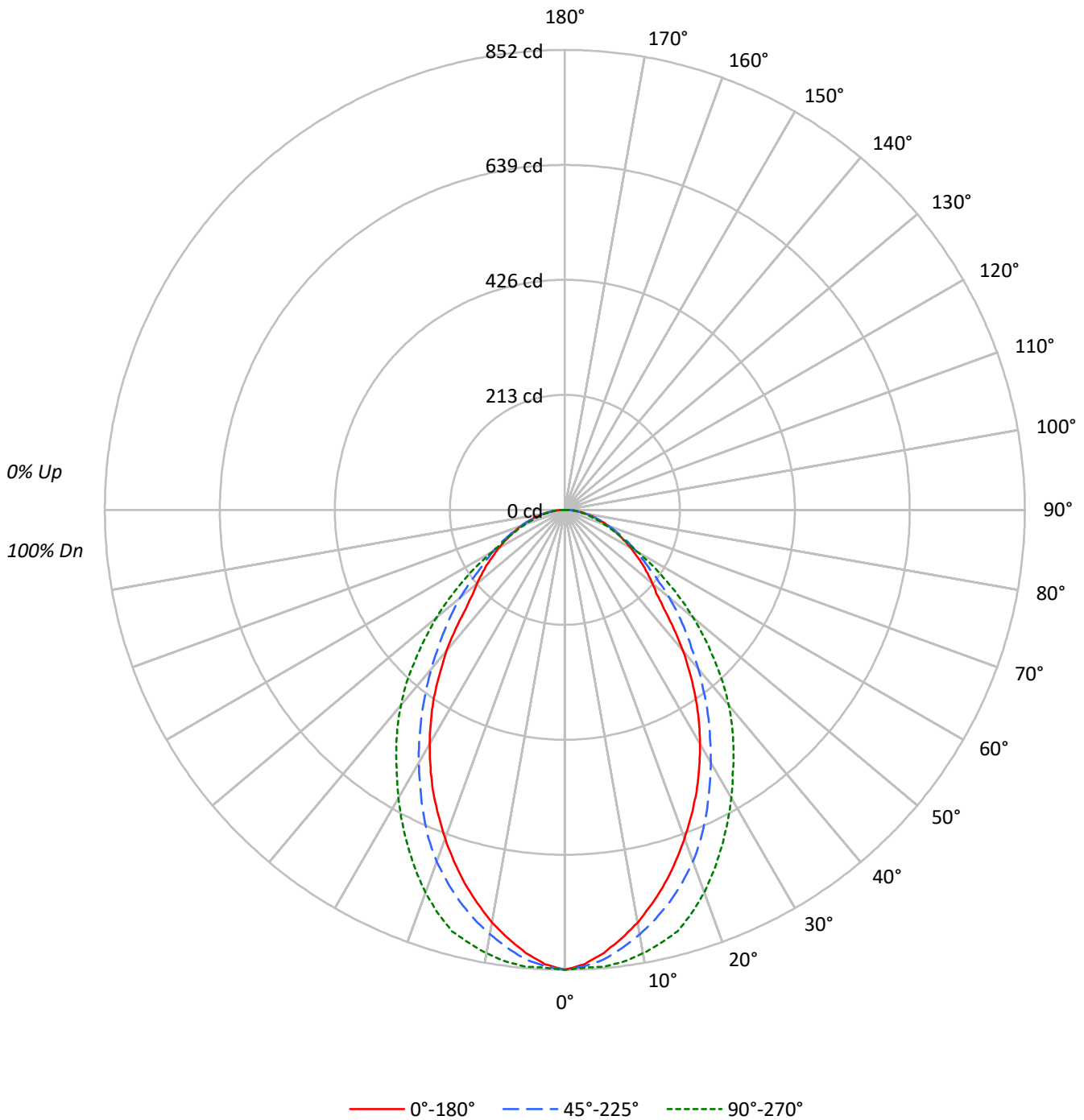
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1497.0 lumens  
Efficiency: N/A  
Efficacy: 63.7 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): 23.5  
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: P1059777

CATALOG NUMBER: S123RDR-H775D927-X4F0-XX-UDD-WVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1059777

CATALOG NUMBER: S123RDR-H775D927-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	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°	10003	10003	10003
5°	9714	9852	10007
10°	9257	9520	9948
15°	8708	9136	9821
20°	8099	8667	9427
25°	7476	8036	8910
30°	6789	7337	8360
35°	6044	6621	7808
40°	5215	5900	7237
45°	4309	5223	6490
50°	3871	4607	5665
55°	3587	3933	4698
60°	3307	3581	3598
65°	3076	3240	3015
70°	2894	2946	2644
75°	2727	2627	2327
80°	2576	2380	2184
85°	2466	2668	2466

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6490 cd/sqm



TEST NUMBER: P1059777

CATALOG NUMBER: S123RDR-H775D927-X4F0-XX-UDD-WVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.9	5.3
10°-20°	212.6	14.2
20°-30°	287.6	19.2
30°-40°	295.5	19.7
40°-50°	248.2	16.6
50°-60°	177.9	11.9
60°-70°	113.3	7.6
70°-80°	62.3	4.2
80°-90°	20.8	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°	579.1	38.7
0°-40°	874.6	58.4
0°-60°	1300.7	86.9
0°-90°	1497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1497.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	852	852	852	852	852	
5°	824	839	836	842	849	77
15°	716	736	752	784	808	201
25°	577	599	620	654	688	264
35°	422	444	462	503	545	262
45°	260	282	314	360	391	205
55°	175	179	192	218	230	157
65°	111	117	117	110	108	110
75°	60	66	58	54	51	64
85°	18	19	20	20	18	20
90°	0	0	0	0	0	

TEST NUMBER: P1059777

CATALOG NUMBER: S123RDR-H775D927-X4F0-XX-UDD-WVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	851.9	851.9	851.9	851.9	851.9
2.5°	842.4	854.1	846.1	846.8	849.0
5°	824.1	838.7	835.8	841.7	849.0
7.5°	801.3	817.5	818.2	832.1	843.9
10°	776.4	793.3	798.4	819.7	834.3
12.5°	747.1	765.4	776.4	802.8	821.9
15°	716.3	736.1	751.5	783.7	807.9
17.5°	682.6	703.8	723.6	758.1	783.0
20°	648.1	670.8	693.6	725.8	754.4
22.5°	612.2	635.6	659.1	690.6	722.2
25°	577.0	599.0	620.2	654.0	687.7
27.5°	538.9	561.6	579.9	617.3	652.5
30°	500.7	523.5	541.1	579.9	616.6
32.5°	461.2	484.6	500.7	541.1	579.2
35°	421.6	444.3	461.9	502.9	544.7
37.5°	379.8	404.7	422.3	468.5	509.5
40°	340.2	363.6	384.9	433.3	472.1
42.5°	299.1	323.3	347.5	397.4	433.3
45°	259.5	282.3	314.5	360.0	390.8
47.5°	230.9	245.6	283.0	321.1	350.4
50°	211.9	217.7	252.2	285.9	310.1
52.5°	192.8	197.2	220.7	251.5	269.8
55°	175.2	178.9	192.1	217.7	229.5
57.5°	156.2	159.8	170.8	185.5	192.1
60°	140.8	143.7	152.5	154.7	153.2
62.5°	125.4	129.8	134.2	129.0	126.8
65°	110.7	117.3	116.6	110.0	108.5
67.5°	97.5	104.1	100.4	93.8	91.6
70°	84.3	90.9	85.8	79.2	77.0
72.5°	71.8	79.2	71.1	65.3	63.8
75°	60.1	66.0	57.9	53.5	51.3
77.5°	49.1	53.5	46.2	42.5	41.1
80°	38.1	41.1	35.2	33.0	32.3
82.5°	27.9	29.3	25.7	27.1	26.4
85°	18.3	19.1	19.8	20.5	18.3
87.5°	8.8	12.5	12.5	11.7	9.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059777

CATALOG NUMBER: S123RDR-H775D927-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	15.19	16.65	15.55	16.96	17.28	16.26	17.72	16.62	18.03	18.35
	3H	16.88	18.19	17.26	18.52	18.88	17.34	18.65	17.72	18.98	19.34
	4H	17.54	18.76	17.94	19.11	19.49	17.74	18.97	18.14	19.32	19.70
	6H	18.04	19.17	18.45	19.54	19.93	18.05	19.19	18.47	19.55	19.95
	8H	18.21	19.29	18.64	19.68	20.08	18.19	19.27	18.61	19.66	20.06
	12H	18.34	19.37	18.77	19.75	20.18	18.31	19.34	18.74	19.72	20.15
4H	2H	15.79	17.02	16.19	17.36	17.74	16.66	17.89	17.06	18.24	18.62
	3H	17.71	18.73	18.13	19.13	19.54	17.98	19.00	18.39	19.40	19.80
	4H	18.53	19.44	18.96	19.86	20.30	18.50	19.41	18.93	19.83	20.27
	6H	19.17	19.97	19.63	20.41	20.88	18.93	19.73	19.39	20.17	20.63
	8H	19.40	20.14	19.86	20.59	21.05	19.12	19.86	19.58	20.31	20.78
	12H	19.57	20.23	20.05	20.71	21.18	19.30	19.97	19.78	20.45	20.92
8H	4H	18.76	19.51	19.23	19.95	20.42	18.74	19.49	19.21	19.93	20.40
	6H	19.55	20.17	20.05	20.66	21.14	19.29	19.91	19.79	20.40	20.88
	8H	19.86	20.42	20.38	20.93	21.42	19.57	20.12	20.08	20.63	21.12
	12H	20.13	20.62	20.64	21.12	21.68	19.86	20.35	20.37	20.84	21.41
12H	4H	18.78	19.44	19.26	19.92	20.39	18.77	19.43	19.25	19.91	20.38
	6H	19.59	20.14	20.10	20.65	21.14	19.34	19.90	19.86	20.41	20.90
	8H	19.96	20.45	20.47	20.94	21.51	19.68	20.17	20.19	20.66	21.23