

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: P1059780

Luminaire Tested: S123RDR-H775D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059780
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D930-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

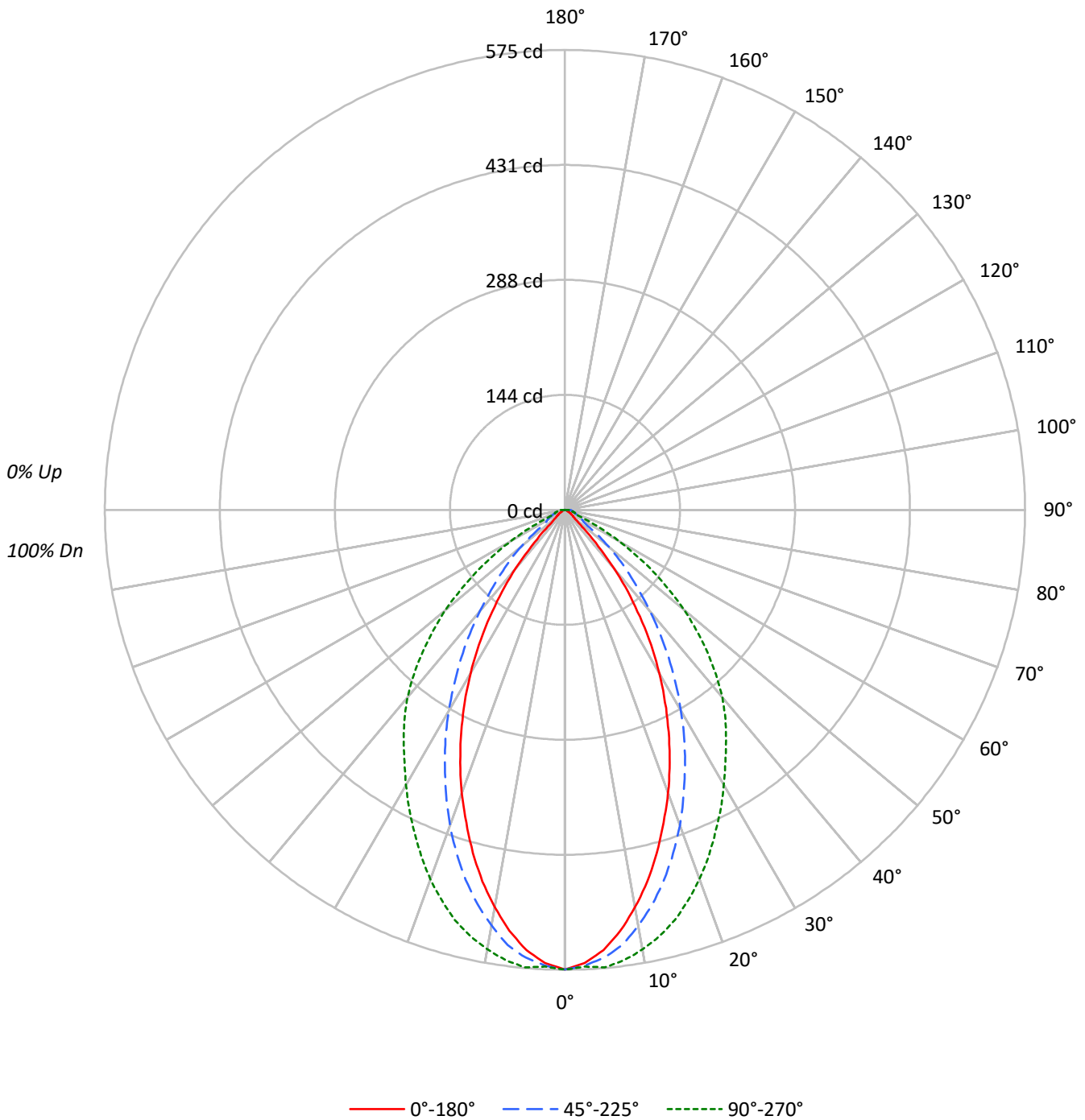
Lumens per Lamp: N/A
Luminaire Lumens: 690.0 lumens
Efficiency: N/A
Efficacy: 29.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059780

CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot



TEST NUMBER: P1059780

CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-BVL-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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6748	6748	6748
5°	6516	6623	6766
10°	6015	6294	6655
15°	5399	5821	6454
20°	4709	5247	6143
25°	3972	4598	5763
30°	3194	3932	5386
35°	2338	3237	5034
40°	1459	2523	4689
45°	551	1881	4176
50°	261	1297	3559
55°	201	710	2751
60°	141	604	1808
65°	106	525	756
70°	103	491	491
75°	136	513	513
80°	203	615	561
85°	404	1024	808

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4176 cd/sqm



TEST NUMBER: P1059780

CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	7.6
10°-20°	135.3	19.6
20°-30°	167.5	24.3
30°-40°	150.1	21.8
40°-50°	98.4	14.3
50°-60°	49.3	7.1
60°-70°	19.2	2.8
70°-80°	10.8	1.6
80°-90°	6.7	1.0
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°	355.5	51.5
0°-40°	505.6	73.3
0°-60°	653.3	94.7
0°-90°	690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	690.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	553	562	562	568	574	51
15°	444	462	479	510	531	124
25°	307	326	355	406	445	140
35°	163	185	226	294	351	102
45°	33	54	113	194	252	32
55°	10	12	35	95	134	9
65°	4	11	19	25	27	4
75°	3	11	11	11	11	3
85°	3	8	8	8	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1059780

CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	574.7	574.7	574.7	574.7	574.7
2.5°	567.2	575.5	570.2	570.9	571.7
5°	552.8	561.9	561.9	567.9	574.0
7.5°	530.9	541.5	549.0	559.6	567.9
10°	504.5	517.3	527.9	546.8	558.1
12.5°	475.8	491.6	505.2	530.2	546.0
15°	444.1	462.2	478.8	510.5	530.9
17.5°	410.1	428.2	450.1	487.1	512.0
20°	376.8	395.0	419.9	461.4	491.6
22.5°	342.1	361.0	387.4	433.5	469.0
25°	306.6	325.5	354.9	405.5	444.8
27.5°	271.1	290.0	323.2	378.4	421.4
30°	235.6	254.5	290.0	348.9	397.2
32.5°	200.1	220.5	257.5	321.7	373.1
35°	163.1	185.0	225.8	293.8	351.2
37.5°	129.1	149.5	195.6	269.6	329.3
40°	95.2	117.1	164.6	246.2	305.9
42.5°	61.9	85.3	136.7	220.5	279.4
45°	33.2	53.6	113.3	194.1	251.5
47.5°	18.1	29.5	91.4	166.1	222.8
50°	14.3	16.6	71.0	142.0	194.8
52.5°	12.1	13.6	50.6	119.3	163.9
55°	9.8	12.1	34.7	95.2	134.4
57.5°	8.3	10.6	27.2	74.0	105.0
60°	6.0	9.1	25.7	54.4	77.0
62.5°	4.5	9.8	22.7	37.8	50.6
65°	3.8	11.3	18.9	24.9	27.2
67.5°	3.0	12.1	16.6	15.9	15.9
70°	3.0	11.3	14.3	13.6	14.3
72.5°	3.0	12.1	12.8	12.1	12.8
75°	3.0	11.3	11.3	11.3	11.3
77.5°	3.0	10.6	10.6	9.8	9.8
80°	3.0	9.1	9.1	9.1	8.3
82.5°	3.0	8.3	8.3	8.3	6.8
85°	3.0	7.6	7.6	7.6	6.0
87.5°	2.3	6.8	7.6	6.8	4.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059780
 CATALOG NUMBER: S123RDR-H775D930-X4F0-XX-UDD-BVL-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	0.00	0.26	0.00	0.57	0.89	13.24	14.49	13.60	14.81	15.12
	3H	1.32	2.43	1.70	2.77	3.13	13.32	14.43	13.70	14.76	15.13
	4H	2.42	3.45	2.82	3.81	4.19	13.40	14.43	13.80	14.78	15.16
	6H	3.41	4.36	3.83	4.73	5.12	13.50	14.45	13.91	14.82	15.21
	8H	3.89	4.79	4.32	5.18	5.58	13.56	14.46	13.99	14.85	15.25
	12H	4.44	5.30	4.88	5.68	6.12	13.64	14.50	14.07	14.88	15.31
4H	2H	2.25	3.28	2.65	3.64	4.02	13.09	14.13	13.50	14.48	14.86
	3H	4.56	5.40	4.97	5.81	6.21	13.27	14.11	13.68	14.52	14.92
	4H	5.92	6.68	6.36	7.10	7.54	13.42	14.17	13.85	14.59	15.04
	6H	7.01	7.67	7.48	8.11	8.58	13.64	14.30	14.11	14.74	15.21
	8H	7.47	8.08	7.94	8.53	9.00	13.77	14.38	14.24	14.83	15.30
	12H	7.96	8.50	8.45	8.98	9.46	13.94	14.48	14.43	14.96	15.44
8H	4H	6.90	7.51	7.37	7.96	8.43	13.42	14.03	13.89	14.47	14.95
	6H	8.43	8.93	8.93	9.42	9.91	13.75	14.25	14.26	14.75	15.23
	8H	9.20	9.65	9.72	10.16	10.66	13.99	14.44	14.51	14.95	15.45
	12H	10.01	10.40	10.52	10.90	11.47	14.32	14.72	14.84	15.22	15.79
12H	4H	7.08	7.61	7.56	8.10	8.57	13.40	13.94	13.89	14.42	14.90
	6H	8.74	9.19	9.27	9.71	10.20	13.77	14.22	14.30	14.74	15.23
	8H	9.70	10.10	10.21	10.59	11.16	14.08	14.48	14.60	14.98	15.55