

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: P1059805

Luminaire Tested: S123RDR-H775D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D950-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

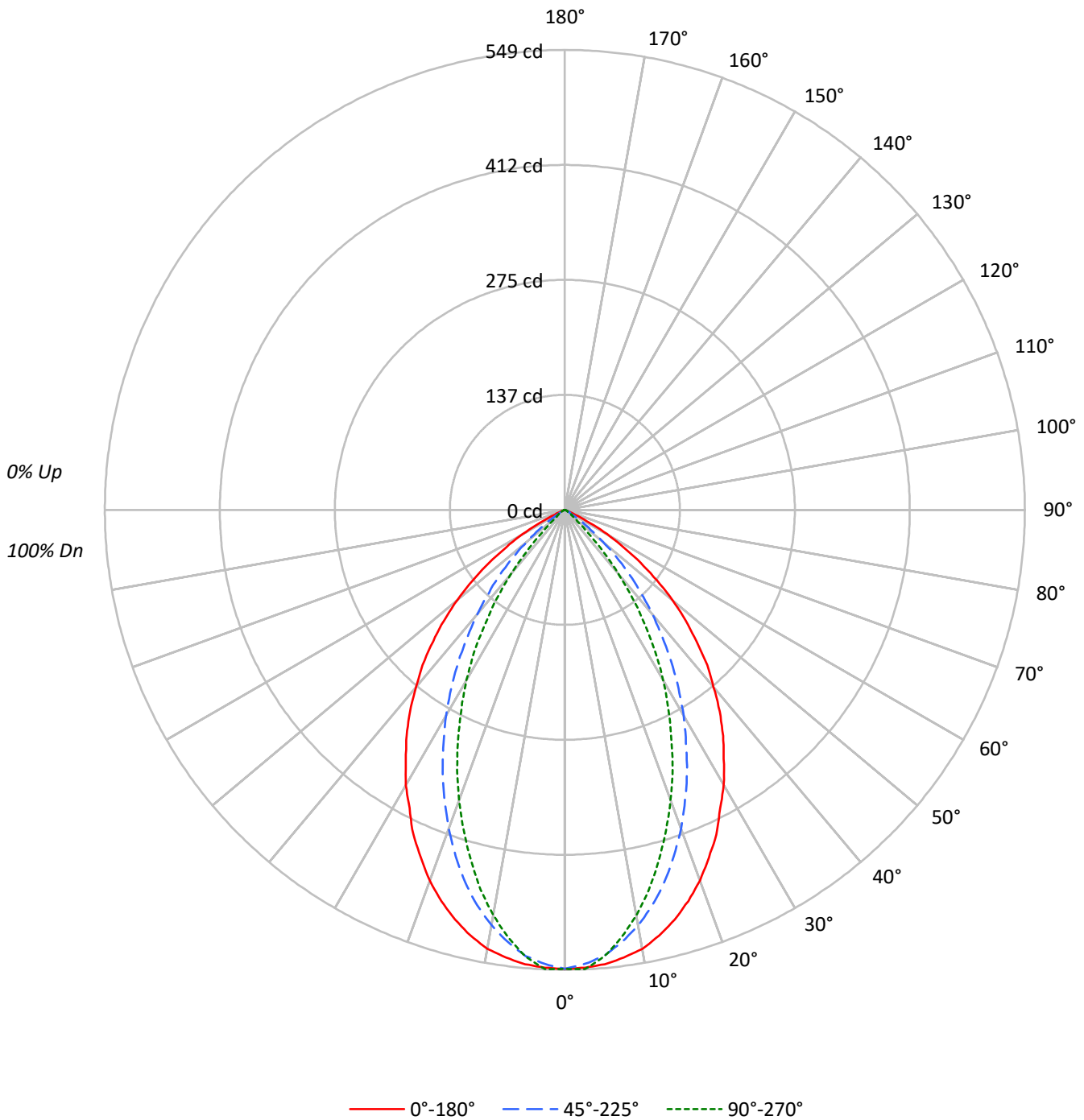
Lumens per Lamp: N/A
Luminaire Lumens: 625.2 lumens
Efficiency: N/A
Efficacy: 26.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059805

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1059805

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-BVL-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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63				
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58				
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53				
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49				
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46				
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6434	6434	6434
5°	6417	6301	6312
10°	6343	6007	5859
15°	6156	5588	5266
20°	5887	5061	4609
25°	5544	4470	3897
30°	5144	3840	3182
35°	4718	3174	2365
40°	4232	2488	1514
45°	3692	1817	629
50°	3062	1080	241
55°	2258	452	180
60°	1367	167	103
65°	367	97	50
70°	0	31	31
75°	0	0	41
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3692 cd/sqm



TEST NUMBER: P1059805

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-BVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	8.1
10°-20°	130.2	20.8
20°-30°	162.2	25.9
30°-40°	145.1	23.2
40°-50°	91.5	14.6
50°-60°	38.3	6.1
60°-70°	7.2	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	342.8	54.8
0°-40°	487.9	78.0
0°-60°	617.7	98.8
0°-90°	625.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	625.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	544	544	535	536	536	52
15°	506	494	460	440	433	142
25°	428	394	345	315	301	196
35°	329	281	221	182	165	205
45°	222	173	109	58	38	171
55°	110	76	22	9	9	99
65°	13	10	4	2	2	19
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P1059805

CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	547.9	547.9	547.9	547.9	547.9
2.5°	547.0	547.9	542.6	547.9	548.8
5°	544.4	543.5	534.6	536.4	535.5
7.5°	539.1	536.4	520.5	517.0	515.2
10°	532.0	524.9	503.8	494.9	491.4
12.5°	520.5	510.8	483.5	469.4	464.1
15°	506.4	494.1	459.7	440.2	433.2
17.5°	489.7	472.0	433.2	412.0	401.4
20°	471.1	446.4	405.0	379.4	368.8
22.5°	449.1	421.7	375.0	347.6	336.1
25°	427.9	393.5	345.0	315.0	300.8
27.5°	401.4	365.3	313.2	282.3	267.3
30°	379.4	337.9	283.2	248.8	234.7
32.5°	352.9	309.7	252.3	214.4	201.2
35°	329.1	281.4	221.4	181.7	165.0
37.5°	303.5	254.1	190.6	149.1	133.2
40°	276.1	226.7	162.3	116.5	98.8
42.5°	251.4	199.4	134.1	86.5	68.8
45°	222.3	172.9	109.4	58.2	37.9
47.5°	195.9	148.2	82.9	32.6	20.3
50°	167.6	122.6	59.1	16.8	13.2
52.5°	138.5	97.9	38.8	11.5	10.6
55°	110.3	75.9	22.1	8.8	8.8
57.5°	82.9	54.7	11.5	7.1	6.2
60°	58.2	36.2	7.1	5.3	4.4
62.5°	33.5	21.2	5.3	3.5	3.5
65°	13.2	9.7	3.5	1.8	1.8
67.5°	0.9	2.6	1.8	0.9	0.9
70°	0.0	0.0	0.9	0.9	0.9
72.5°	0.0	0.0	0.9	0.9	0.9
75°	0.0	0.0	0.0	0.0	0.9
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1059805
 CATALOG NUMBER: S123RDR-H775D950-X4F0-XX-UDD-BVL-B

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	11.66	12.83	12.02	13.15	13.46	0.00	0.00	0.00	0.00	0.00
	3H	11.50	12.53	11.88	12.86	13.23	0.00	0.00	0.00	0.00	0.00
	4H	11.41	12.37	11.82	12.72	13.10	0.00	0.00	0.00	0.00	0.00
	6H	11.32	12.19	11.74	12.56	12.96	0.00	0.00	0.00	0.00	0.00
	8H	11.27	12.09	11.70	12.48	12.89	0.00	0.00	0.00	0.00	0.00
	12H	11.22	12.00	11.65	12.39	12.82	0.00	0.00	0.00	0.00	0.00
4H	2H	11.42	12.37	11.82	12.72	13.11	0.00	0.00	0.00	0.00	0.00
	3H	11.25	12.02	11.67	12.43	12.83	0.00	0.00	0.00	0.00	0.00
	4H	11.15	11.83	11.58	12.25	12.70	0.00	0.00	0.00	0.00	0.00
	6H	11.05	11.63	11.52	12.08	12.55	0.00	0.00	0.00	0.00	0.00
	8H	10.99	11.53	11.46	11.98	12.45	0.00	0.00	0.00	0.00	0.00
	12H	10.93	11.40	11.42	11.89	12.37	0.00	0.00	0.00	0.00	0.00
8H	4H	10.99	11.53	11.46	11.98	12.45	0.00	0.00	0.00	0.00	0.00
	6H	10.87	11.31	11.38	11.81	12.29	0.00	0.00	0.00	0.00	0.00
	8H	10.80	11.19	11.32	11.71	12.21	0.00	0.00	0.00	0.00	0.00
	12H	10.74	11.09	11.26	11.59	12.17	0.00	0.00	0.00	0.00	0.00
12H	4H	10.93	11.40	11.42	11.89	12.37	0.00	0.00	0.00	0.00	0.00
	6H	10.80	11.19	11.33	11.71	12.21	0.00	0.00	0.00	0.00	0.00
	8H	10.74	11.09	11.26	11.59	12.17	0.00	0.00	0.00	0.00	0.00