

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: P1059773

Luminaire Tested: S123RDR-H775D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059773
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D927-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

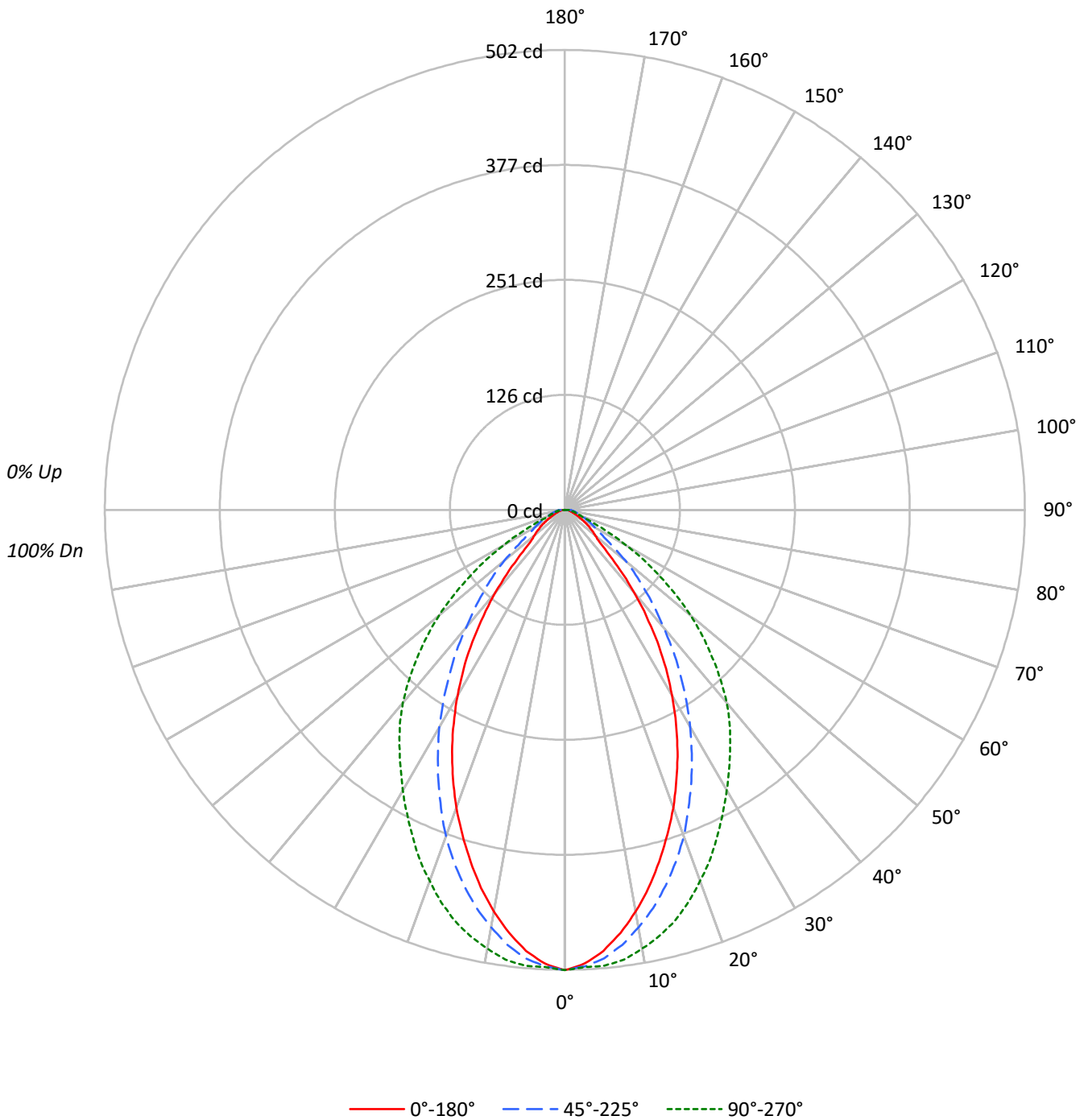
Lumens per Lamp: N/A
Luminaire Lumens: 672.9 lumens
Efficiency: N/A
Efficacy: 28.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58			58	
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5899	5899	5899
5°	5697	5792	5888
10°	5308	5518	5798
15°	4832	5163	5644
20°	4326	4738	5390
25°	3773	4229	5093
30°	3173	3710	4793
35°	2523	3144	4510
40°	1800	2563	4215
45°	1071	2059	3776
50°	791	1567	3270
55°	661	1067	2598
60°	533	878	1825
65°	428	753	978
70°	354	656	604
75°	331	631	567
80°	345	697	548
85°	498	984	687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3776 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	6.9
10°-20°	119.9	17.8
20°-30°	152.9	22.7
30°-40°	143.9	21.4
40°-50°	103.4	15.4
50°-60°	59.3	8.8
60°-70°	27.1	4.0
70°-80°	13.6	2.0
80°-90°	6.6	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°	319.0	47.4
0°-40°	462.8	68.8
0°-60°	625.5	93.0
0°-90°	672.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	672.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	483	493	491	495	500	45
15°	398	412	425	447	464	111
25°	291	304	326	362	393	133
35°	176	188	219	269	315	109
45°	64	78	124	183	227	54
55°	32	33	52	96	127	29
65°	15	21	27	30	35	15
75°	7	15	14	12	12	8
85°	4	7	7	7	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	502.4	502.4	502.4	502.4	502.4
2.5°	495.8	503.1	498.7	498.7	499.5
5°	483.3	492.9	491.4	495.1	499.5
7.5°	465.7	476.0	478.9	487.7	495.1
10°	445.2	456.9	462.8	476.7	486.3
12.5°	422.5	435.7	445.2	462.8	476.7
15°	397.5	411.5	424.7	447.4	464.3
17.5°	371.9	385.8	402.7	429.1	448.9
20°	346.2	360.1	379.2	407.1	431.3
22.5°	318.3	332.2	352.8	384.3	413.7
25°	291.2	304.4	326.4	361.6	393.1
27.5°	262.6	275.8	300.0	338.1	373.3
30°	234.0	247.2	273.6	314.6	353.5
32.5°	205.4	217.8	246.4	291.9	333.7
35°	176.0	188.5	219.3	269.2	314.6
37.5°	146.0	158.4	194.4	248.6	295.6
40°	117.4	131.3	167.2	228.1	275.0
42.5°	89.5	104.1	145.2	206.1	251.6
45°	64.5	78.5	124.0	182.6	227.4
47.5°	49.1	56.5	104.9	159.2	203.9
50°	43.3	44.0	85.8	137.9	179.0
52.5°	37.4	38.1	66.7	117.4	152.6
55°	32.3	33.0	52.1	96.1	126.9
57.5°	27.1	28.6	42.5	76.3	101.9
60°	22.7	25.7	37.4	57.9	77.7
62.5°	18.3	23.5	32.3	42.5	55.7
65°	15.4	21.3	27.1	30.1	35.2
67.5°	12.5	19.8	22.7	21.3	21.3
70°	10.3	17.6	19.1	17.6	17.6
72.5°	8.8	16.9	16.1	14.7	14.7
75°	7.3	14.7	13.9	12.5	12.5
77.5°	6.6	12.5	11.7	11.0	10.3
80°	5.1	10.3	10.3	9.5	8.1
82.5°	4.4	8.8	8.8	8.1	6.6
85°	3.7	7.3	7.3	6.6	5.1
87.5°	2.9	6.6	6.6	5.9	3.7
90°	0.0	0.0	0.0	0.0	0.0



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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	6.15	7.47	6.51	7.78	8.09	13.37	14.69	13.74	15.01	15.32
	3H	7.55	8.72	7.93	9.05	9.42	13.61	14.78	13.99	15.11	15.47
	4H	8.11	9.20	8.52	9.55	9.94	13.72	14.81	14.12	15.16	15.54
	6H	8.57	9.57	8.99	9.94	10.34	13.83	14.83	14.24	15.20	15.59
	8H	8.76	9.71	9.19	10.10	10.50	13.87	14.82	14.30	15.21	15.62
	12H	8.95	9.86	9.38	10.24	10.67	13.93	14.83	14.36	15.22	15.65
4H	2H	7.22	8.31	7.62	8.66	9.04	13.34	14.42	13.74	14.78	15.16
	3H	8.91	9.81	9.33	10.21	10.61	13.70	14.60	14.12	15.00	15.40
	4H	9.75	10.55	10.18	10.97	11.41	13.89	14.69	14.32	15.11	15.55
	6H	10.41	11.10	10.87	11.55	12.01	14.11	14.80	14.57	15.25	15.72
	8H	10.66	11.31	11.13	11.76	12.23	14.21	14.86	14.68	15.31	15.78
	12H	10.92	11.49	11.41	11.97	12.45	14.33	14.90	14.81	15.38	15.86
8H	4H	10.18	10.83	10.65	11.28	11.75	13.93	14.58	14.40	15.03	15.50
	6H	11.14	11.67	11.64	12.16	12.64	14.27	14.80	14.77	15.29	15.77
	8H	11.60	12.08	12.12	12.59	13.09	14.46	14.93	14.98	15.45	15.94
	12H	12.08	12.50	12.59	13.00	13.57	14.69	15.11	15.20	15.61	16.18
12H	4H	10.24	10.81	10.73	11.30	11.77	13.93	14.50	14.41	14.98	15.45
	6H	11.29	11.76	11.81	12.28	12.77	14.29	14.77	14.81	15.29	15.78
	8H	11.88	12.30	12.39	12.79	13.36	14.55	14.98	15.07	15.47	16.04