

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: P1059790

Luminaire Tested: S123RDR-H775D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059790
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

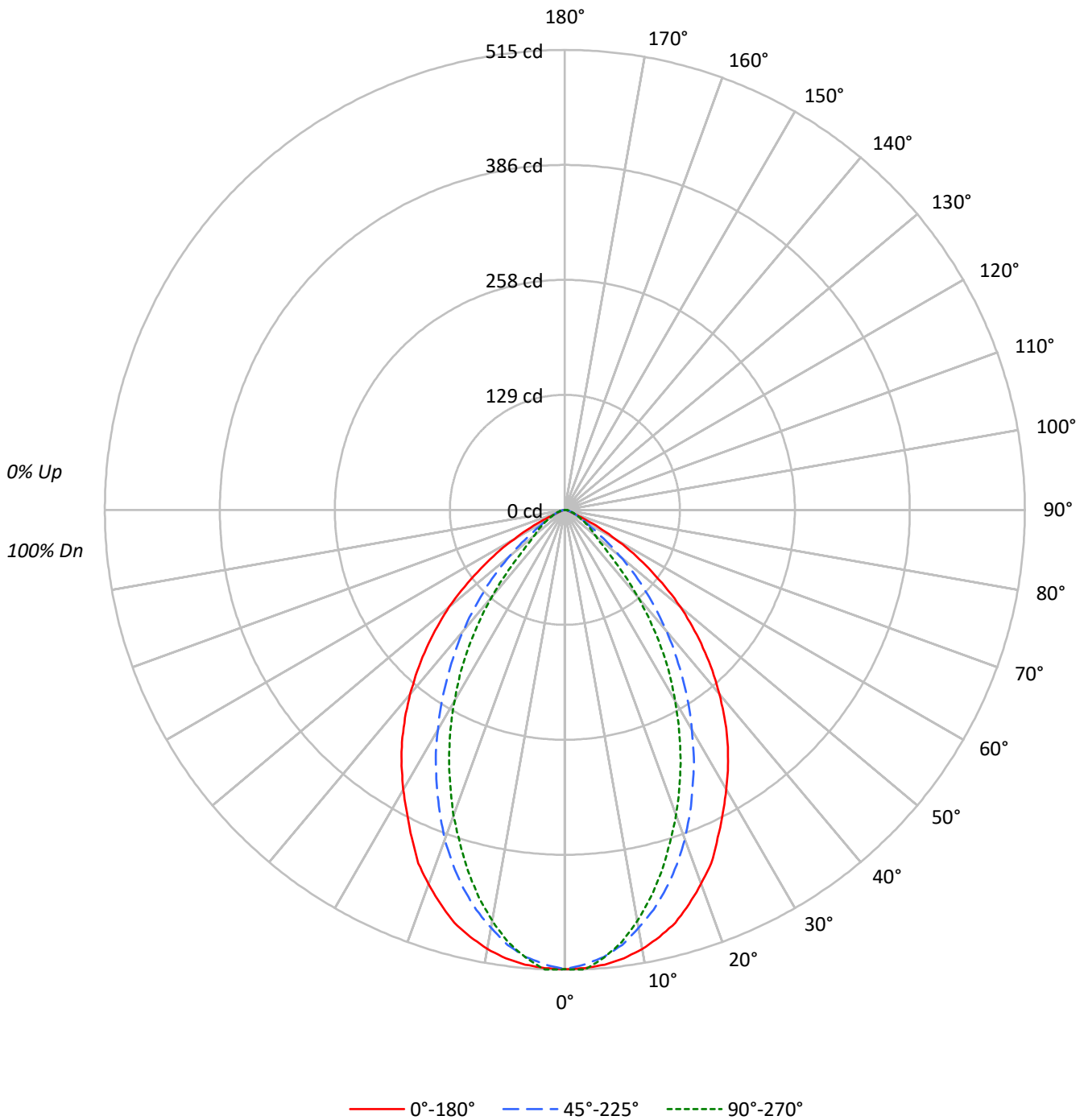
Lumens per Lamp: N/A
Luminaire Lumens: 664.1 lumens
Efficiency: N/A
Efficacy: 28.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6040	6040	6040
5°	6026	5923	5933
10°	5953	5668	5573
15°	5818	5334	5092
20°	5572	4906	4547
25°	5251	4395	3972
30°	4902	3855	3348
35°	4554	3287	2694
40°	4126	2710	1953
45°	3637	2102	1177
50°	3084	1469	800
55°	2348	880	667
60°	1534	561	524
65°	642	420	420
70°	220	302	330
75°	181	218	254
80°	108	162	216
85°	108	108	216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3637 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	7.2
10°-20°	124.3	18.7
20°-30°	159.4	24.0
30°-40°	149.6	22.5
40°-50°	104.4	15.7
50°-60°	54.0	8.1
60°-70°	18.4	2.8
70°-80°	5.3	0.8
80°-90°	1.1	0.2
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°	331.3	49.9
0°-40°	480.9	72.4
0°-60°	639.3	96.3
0°-90°	664.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	664.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	514	514	514	514	514	
5°	511	510	502	505	503	48
15°	479	467	439	424	419	134
25°	405	380	339	316	307	186
35°	318	279	229	200	188	198
45°	219	179	127	88	71	169
55°	115	86	43	33	33	103
65°	23	20	15	14	15	27
75°	4	4	5	6	6	4
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	514.4	514.4	514.4	514.4	514.4
2.5°	513.6	514.4	509.6	514.4	515.2
5°	511.2	510.4	502.5	504.9	503.3
7.5°	506.5	504.1	491.3	488.1	488.1
10°	499.3	494.5	475.4	469.8	467.4
12.5°	489.7	483.4	458.7	448.3	444.3
15°	478.6	466.6	438.8	424.4	418.9
17.5°	462.7	446.7	416.5	399.7	391.0
20°	445.9	426.0	392.6	372.7	363.9
22.5°	428.4	404.5	366.3	344.8	335.2
25°	405.3	379.8	339.2	316.1	306.6
27.5°	383.0	356.0	312.9	286.7	277.1
30°	361.5	329.7	284.3	258.8	246.9
32.5°	340.0	304.2	257.2	229.3	218.2
35°	317.7	278.7	229.3	199.9	187.9
37.5°	293.8	254.0	203.1	171.2	156.9
40°	269.2	227.7	176.8	140.9	127.4
42.5°	244.5	203.9	150.5	113.9	97.9
45°	219.0	179.2	126.6	87.6	70.9
47.5°	193.5	154.5	103.5	63.7	53.4
50°	168.8	131.4	80.4	47.0	43.8
52.5°	141.7	109.1	60.5	39.0	38.2
55°	114.7	86.0	43.0	33.4	32.6
57.5°	90.8	66.9	31.1	27.9	27.1
60°	65.3	47.8	23.9	23.1	22.3
62.5°	43.0	32.6	19.1	18.3	18.3
65°	23.1	19.9	15.1	14.3	15.1
67.5°	9.6	11.1	11.1	11.9	11.9
70°	6.4	7.2	8.8	9.6	9.6
72.5°	4.8	5.6	6.4	7.2	7.2
75°	4.0	4.0	4.8	5.6	5.6
77.5°	2.4	3.2	3.2	4.0	4.8
80°	1.6	2.4	2.4	3.2	3.2
82.5°	0.8	1.6	1.6	2.4	2.4
85°	0.8	0.8	0.8	0.8	1.6
87.5°	0.0	0.0	0.0	0.0	0.8
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	12.58	13.84	12.95	14.15	14.47	6.09	7.35	6.46	7.67	7.98
	3H	12.54	13.64	12.92	13.98	14.34	6.87	7.97	7.25	8.31	8.67
	4H	12.48	13.51	12.89	13.86	14.25	7.07	8.10	7.47	8.45	8.84
	6H	12.41	13.36	12.83	13.73	14.12	7.22	8.16	7.63	8.53	8.92
	8H	12.37	13.26	12.80	13.65	14.06	7.25	8.14	7.68	8.53	8.94
	12H	12.33	13.18	12.76	13.56	13.99	7.27	8.12	7.70	8.50	8.93
4H	2H	12.43	13.46	12.83	13.81	14.19	6.35	7.38	6.75	7.73	8.11
	3H	12.41	13.25	12.83	13.65	14.06	7.26	8.09	7.67	8.50	8.90
	4H	12.36	13.11	12.80	13.53	13.97	7.53	8.27	7.97	8.69	9.14
	6H	12.31	12.94	12.77	13.39	13.86	7.75	8.39	8.21	8.83	9.30
	8H	12.25	12.85	12.72	13.30	13.77	7.81	8.41	8.28	8.85	9.33
	12H	12.21	12.73	12.70	13.22	13.69	7.85	8.37	8.34	8.86	9.33
8H	4H	12.25	12.85	12.72	13.29	13.77	7.52	8.11	7.99	8.56	9.03
	6H	12.19	12.67	12.69	13.17	13.65	7.79	8.27	8.29	8.77	9.25
	8H	12.14	12.57	12.66	13.09	13.58	7.90	8.33	8.42	8.85	9.34
	12H	12.10	12.48	12.62	12.98	13.55	7.97	8.35	8.49	8.85	9.42
12H	4H	12.20	12.73	12.69	13.21	13.69	7.48	8.00	7.97	8.49	8.96
	6H	12.13	12.57	12.65	13.08	13.58	7.75	8.18	8.27	8.70	9.19
	8H	12.10	12.49	12.62	12.98	13.55	7.89	8.27	8.40	8.77	9.34