

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: P1059781

Luminaire Tested: S123RDR-H775D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059781
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-H775D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

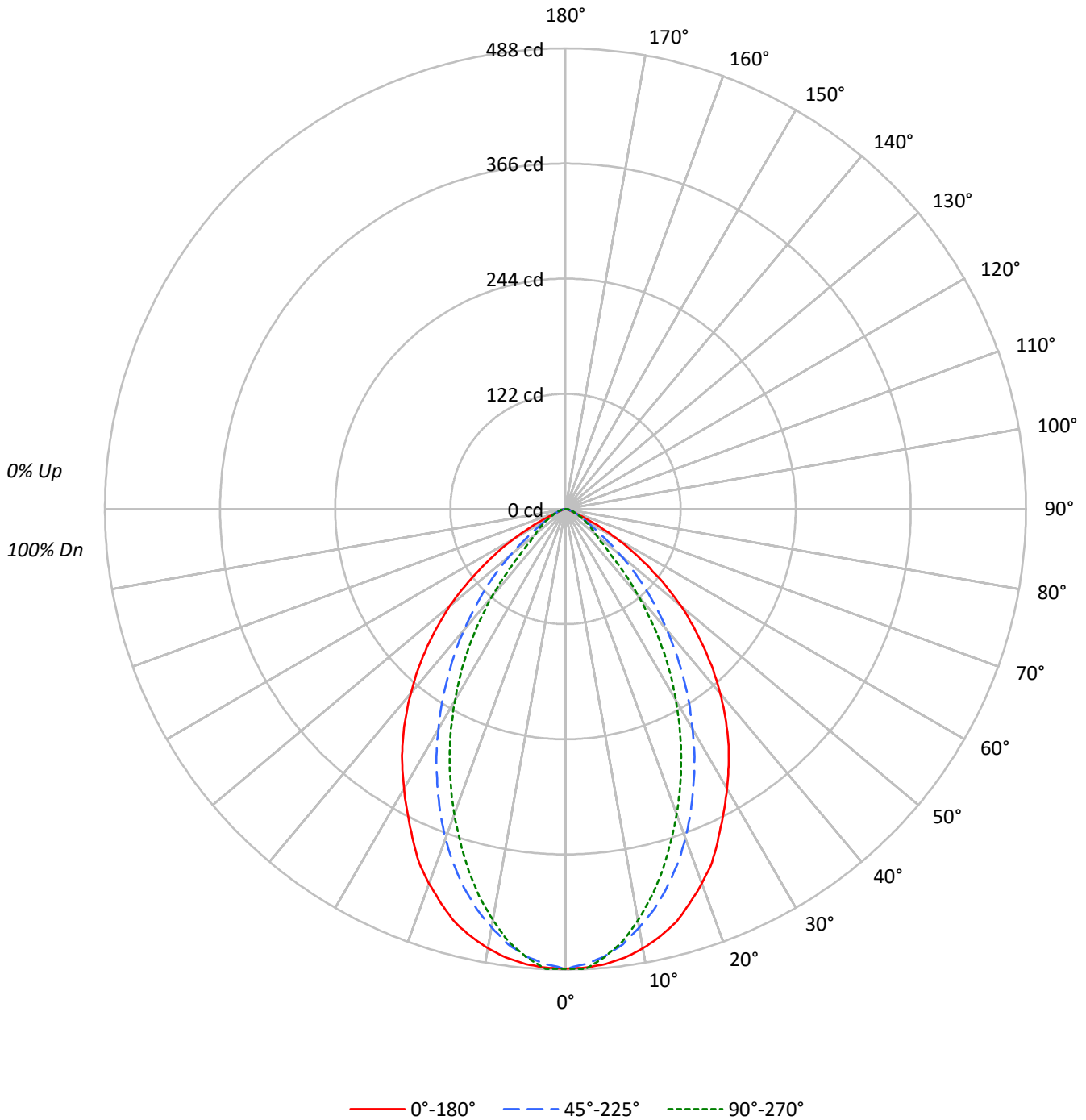
Lumens per Lamp: N/A
Luminaire Lumens: 628.9 lumens
Efficiency: N/A
Efficacy: 26.8 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	5720	5720	5720
5°	5706	5608	5618
10°	5637	5368	5277
15°	5509	5051	4821
20°	5277	4645	4306
25°	4973	4162	3761
30°	4641	3650	3170
35°	4313	3114	2552
40°	3907	2566	1849
45°	3444	1991	1114
50°	2921	1392	758
55°	2223	833	633
60°	1451	531	496
65°	608	397	397
70°	206	285	309
75°	172	204	240
80°	101	156	203
85°	108	108	202

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3444 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	7.2
10°-20°	117.7	18.7
20°-30°	151.0	24.0
30°-40°	141.7	22.5
40°-50°	98.8	15.7
50°-60°	51.1	8.1
60°-70°	17.5	2.8
70°-80°	5.0	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°	313.7	49.9
0°-40°	455.4	72.4
0°-60°	605.3	96.3
0°-90°	628.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	628.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	487	487	487	487	487	
5°	484	483	476	478	477	46
15°	453	442	416	402	397	127
25°	384	360	321	299	290	176
35°	301	264	217	189	178	187
45°	207	170	120	83	67	160
55°	109	81	41	32	31	98
65°	22	19	14	14	14	26
75°	4	4	4	5	5	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°	487.1	487.1	487.1	487.1	487.1
2.5°	486.4	487.1	482.6	487.1	487.9
5°	484.1	483.3	475.8	478.1	476.6
7.5°	479.6	477.3	465.2	462.2	462.2
10°	472.8	468.3	450.2	444.9	442.6
12.5°	463.7	457.7	434.3	424.5	420.8
15°	453.2	441.9	415.5	401.9	396.6
17.5°	438.1	423.0	394.4	378.5	370.2
20°	422.3	403.4	371.7	352.9	344.6
22.5°	405.7	383.1	346.9	326.5	317.5
25°	383.8	359.7	321.2	299.4	290.3
27.5°	362.7	337.1	296.3	271.5	262.4
30°	342.3	312.2	269.2	245.1	233.8
32.5°	322.0	288.0	243.6	217.2	206.6
35°	300.9	263.9	217.2	189.3	178.0
37.5°	278.2	240.5	192.3	162.1	148.5
40°	254.9	215.7	167.4	133.5	120.6
42.5°	231.5	193.0	142.5	107.8	92.7
45°	207.4	169.7	119.9	82.9	67.1
47.5°	183.2	146.3	98.0	60.3	50.5
50°	159.9	124.4	76.2	44.5	41.5
52.5°	134.2	103.3	57.3	36.9	36.2
55°	108.6	81.4	40.7	31.7	30.9
57.5°	86.0	63.3	29.4	26.4	25.6
60°	61.8	45.2	22.6	21.9	21.1
62.5°	40.7	30.9	18.1	17.3	17.3
65°	21.9	18.9	14.3	13.6	14.3
67.5°	9.0	10.6	10.6	11.3	11.3
70°	6.0	6.8	8.3	9.0	9.0
72.5°	4.5	5.3	6.0	6.8	6.8
75°	3.8	3.8	4.5	5.3	5.3
77.5°	2.3	3.0	3.0	3.8	4.5
80°	1.5	2.3	2.3	3.0	3.0
82.5°	0.8	1.5	1.5	2.3	2.3
85°	0.8	0.8	0.8	0.8	1.5
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	12.39	13.65	12.75	13.96	14.28	5.90	7.16	6.26	7.47	7.79
	3H	12.34	13.45	12.72	13.78	14.15	6.67	7.78	7.05	8.11	8.47
	4H	12.29	13.32	12.69	13.67	14.06	6.87	7.90	7.28	8.25	8.64
	6H	12.22	13.16	12.63	13.53	13.93	7.01	7.96	7.43	8.33	8.72
	8H	12.18	13.07	12.61	13.46	13.87	7.05	7.94	7.48	8.34	8.74
	12H	12.13	12.99	12.57	13.37	13.80	7.07	7.92	7.50	8.31	8.74
4H	2H	12.23	13.26	12.64	13.62	14.00	6.15	7.18	6.56	7.53	7.92
	3H	12.22	13.06	12.63	13.46	13.86	7.06	7.89	7.47	8.30	8.70
	4H	12.17	12.91	12.60	13.33	13.78	7.33	8.07	7.77	8.49	8.94
	6H	12.11	12.75	12.58	13.20	13.67	7.55	8.18	8.01	8.63	9.10
	8H	12.06	12.66	12.53	13.10	13.58	7.61	8.21	8.08	8.65	9.13
	12H	12.02	12.54	12.50	13.02	13.50	7.65	8.17	8.14	8.66	9.13
8H	4H	12.06	12.65	12.53	13.10	13.57	7.31	7.91	7.79	8.36	8.83
	6H	11.99	12.48	12.50	12.98	13.46	7.58	8.07	8.09	8.57	9.05
	8H	11.94	12.38	12.47	12.90	13.39	7.69	8.13	8.22	8.65	9.14
	12H	11.91	12.29	12.42	12.79	13.36	7.77	8.16	8.29	8.65	9.23
12H	4H	12.01	12.53	12.50	13.02	13.49	7.28	7.80	7.77	8.29	8.76
	6H	11.94	12.37	12.46	12.89	13.38	7.55	7.98	8.07	8.50	8.99
	8H	11.91	12.29	12.42	12.79	13.36	7.69	8.07	8.21	8.57	9.14