

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059115

Luminaire Tested: S123RDRP-S1165D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059115
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: S123RDRP-S1165D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

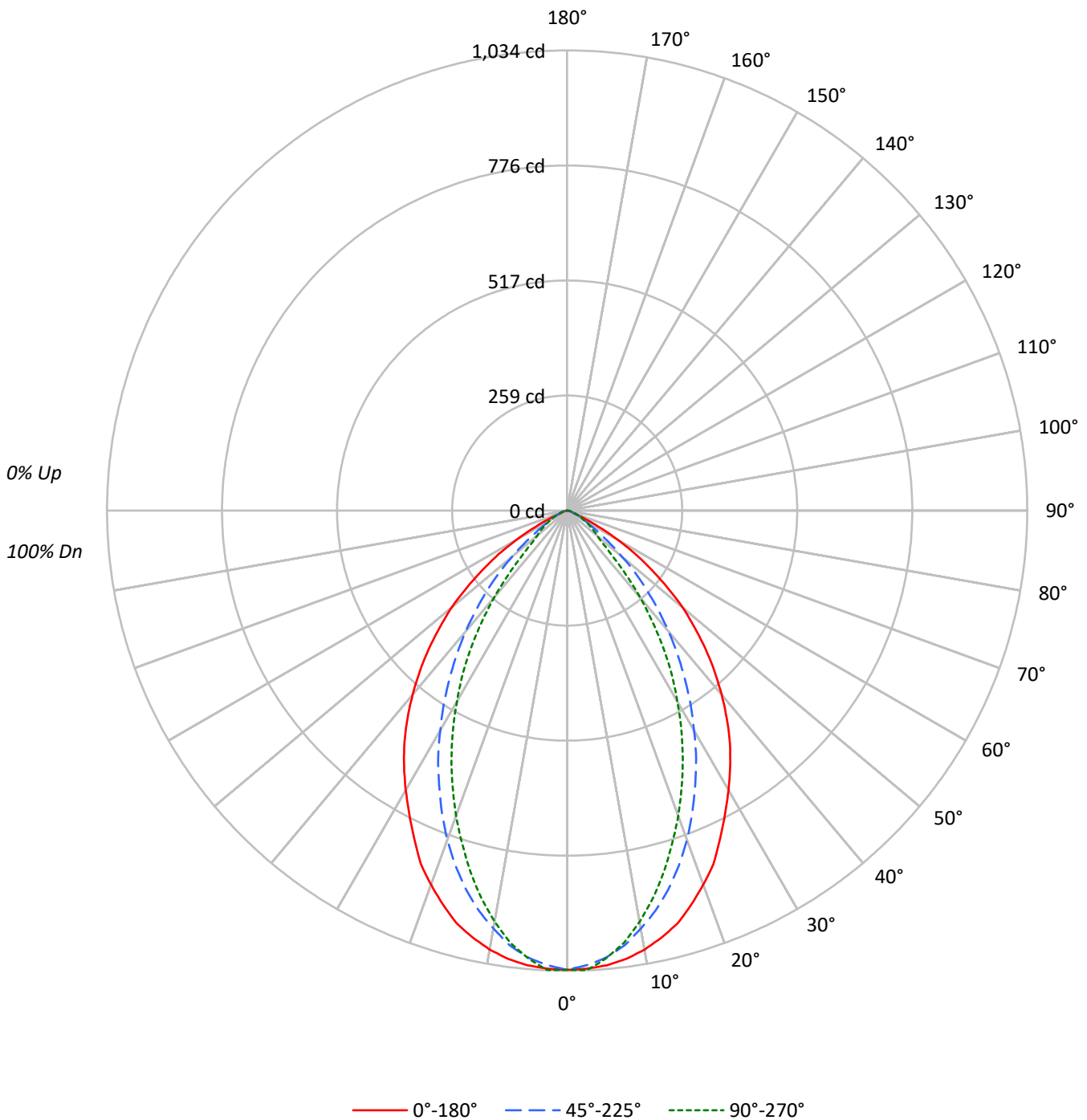
Lumens per Lamp: N/A
Luminaire Lumens: 1332.2 lumens
Efficiency: N/A
Efficacy: 31.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	12117	12117	12117
5°	12088	11882	11900
10°	11943	11372	11181
15°	11670	10700	10214
20°	11178	9841	9122
25°	10535	8817	7968
30°	9833	7733	6714
35°	9137	6595	5404
40°	8276	5436	3918
45°	7295	4218	2361
50°	6187	2947	1606
55°	4709	1767	1341
60°	3077	1125	1050
65°	1286	845	845
70°	439	604	659
75°	363	436	508
80°	216	325	433
85°	216	216	431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7295 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	7.2
10°-20°	249.4	18.7
20°-30°	319.9	24.0
30°-40°	300.1	22.5
40°-50°	209.4	15.7
50°-60°	108.3	8.1
60°-70°	37.0	2.8
70°-80°	10.6	0.8
80°-90°	2.2	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°	664.6	49.9
0°-40°	964.7	72.4
0°-60°	1282.4	96.3
0°-90°	1332.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1332.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1032	1032	1032	1032	1032	
5°	1026	1024	1008	1013	1010	97
15°	960	936	880	851	840	269
25°	813	762	680	634	615	374
35°	637	559	460	401	377	397
45°	439	359	254	176	142	338
55°	230	172	86	67	66	207
65°	46	40	30	29	30	55
75°	8	8	10	11	11	8
85°	2	2	2	2	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1031.9	1031.9	1031.9	1031.9	1031.9
2.5°	1030.3	1031.9	1022.3	1031.9	1033.5
5°	1025.5	1023.9	1008.0	1012.8	1009.6
7.5°	1016.0	1011.2	985.6	979.2	979.2
10°	1001.6	992.0	953.7	942.5	937.7
12.5°	982.4	969.6	920.1	899.3	891.4
15°	960.0	936.1	880.2	851.4	840.2
17.5°	928.1	896.1	835.4	801.9	784.3
20°	894.5	854.6	787.5	747.6	730.0
22.5°	859.4	811.5	734.8	691.7	672.5
25°	813.1	762.0	680.5	634.2	615.0
27.5°	768.4	714.0	627.8	575.1	555.9
30°	725.2	661.3	570.3	519.2	495.2
32.5°	682.1	610.2	516.0	460.1	437.7
35°	637.4	559.1	460.1	400.9	377.0
37.5°	589.4	509.6	407.3	343.4	314.7
40°	539.9	456.9	354.6	282.7	255.6
42.5°	490.4	408.9	301.9	228.4	196.5
45°	439.3	359.4	254.0	175.7	142.2
47.5°	388.2	309.9	207.7	127.8	107.0
50°	338.7	263.6	161.3	94.2	87.9
52.5°	284.3	218.8	121.4	78.3	76.7
55°	230.0	172.5	86.3	67.1	65.5
57.5°	182.1	134.2	62.3	55.9	54.3
60°	131.0	95.8	47.9	46.3	44.7
62.5°	86.3	65.5	38.3	36.7	36.7
65°	46.3	39.9	30.4	28.8	30.4
67.5°	19.2	22.4	22.4	24.0	24.0
70°	12.8	14.4	17.6	19.2	19.2
72.5°	9.6	11.2	12.8	14.4	14.4
75°	8.0	8.0	9.6	11.2	11.2
77.5°	4.8	6.4	6.4	8.0	9.6
80°	3.2	4.8	4.8	6.4	6.4
82.5°	1.6	3.2	3.2	4.8	4.8
85°	1.6	1.6	1.6	1.6	3.2
87.5°	0.0	0.0	0.0	0.0	1.6
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	15.00	16.26	15.37	16.57	16.89	8.50	9.76	8.87	10.08	10.39
	3H	14.95	16.06	15.33	16.39	16.76	9.28	10.39	9.66	10.72	11.09
	4H	14.90	15.93	15.30	16.28	16.67	9.48	10.51	9.89	10.87	11.25
	6H	14.83	15.77	15.25	16.15	16.54	9.63	10.57	10.04	10.94	11.34
	8H	14.79	15.68	15.22	16.07	16.48	9.67	10.56	10.10	10.95	11.35
	12H	14.74	15.60	15.18	15.98	16.41	9.68	10.53	10.12	10.92	11.35
4H	2H	14.85	15.88	15.25	16.23	16.61	8.76	9.79	9.17	10.14	10.53
	3H	14.83	15.67	15.25	16.07	16.48	9.67	10.51	10.09	10.91	11.32
	4H	14.78	15.52	15.22	15.94	16.39	9.95	10.69	10.38	11.11	11.55
	6H	14.72	15.36	15.19	15.81	16.28	10.16	10.80	10.63	11.25	11.72
	8H	14.67	15.27	15.14	15.71	16.19	10.22	10.82	10.70	11.27	11.74
	12H	14.63	15.15	15.11	15.63	16.11	10.26	10.79	10.75	11.27	11.75
8H	4H	14.67	15.26	15.14	15.71	16.18	9.93	10.52	10.40	10.97	11.45
	6H	14.61	15.09	15.11	15.59	16.07	10.20	10.68	10.70	11.18	11.66
	8H	14.55	14.99	15.08	15.51	16.00	10.31	10.74	10.83	11.26	11.75
	12H	14.52	14.90	15.03	15.40	15.97	10.38	10.77	10.90	11.26	11.83
12H	4H	14.62	15.15	15.11	15.63	16.11	9.89	10.42	10.38	10.90	11.38
	6H	14.55	14.98	15.07	15.50	15.99	10.16	10.60	10.69	11.11	11.61
	8H	14.52	14.90	15.03	15.40	15.97	10.30	10.68	10.82	11.18	11.75