

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: P1058546

Luminaire Tested: S122RDR-H865D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058546
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

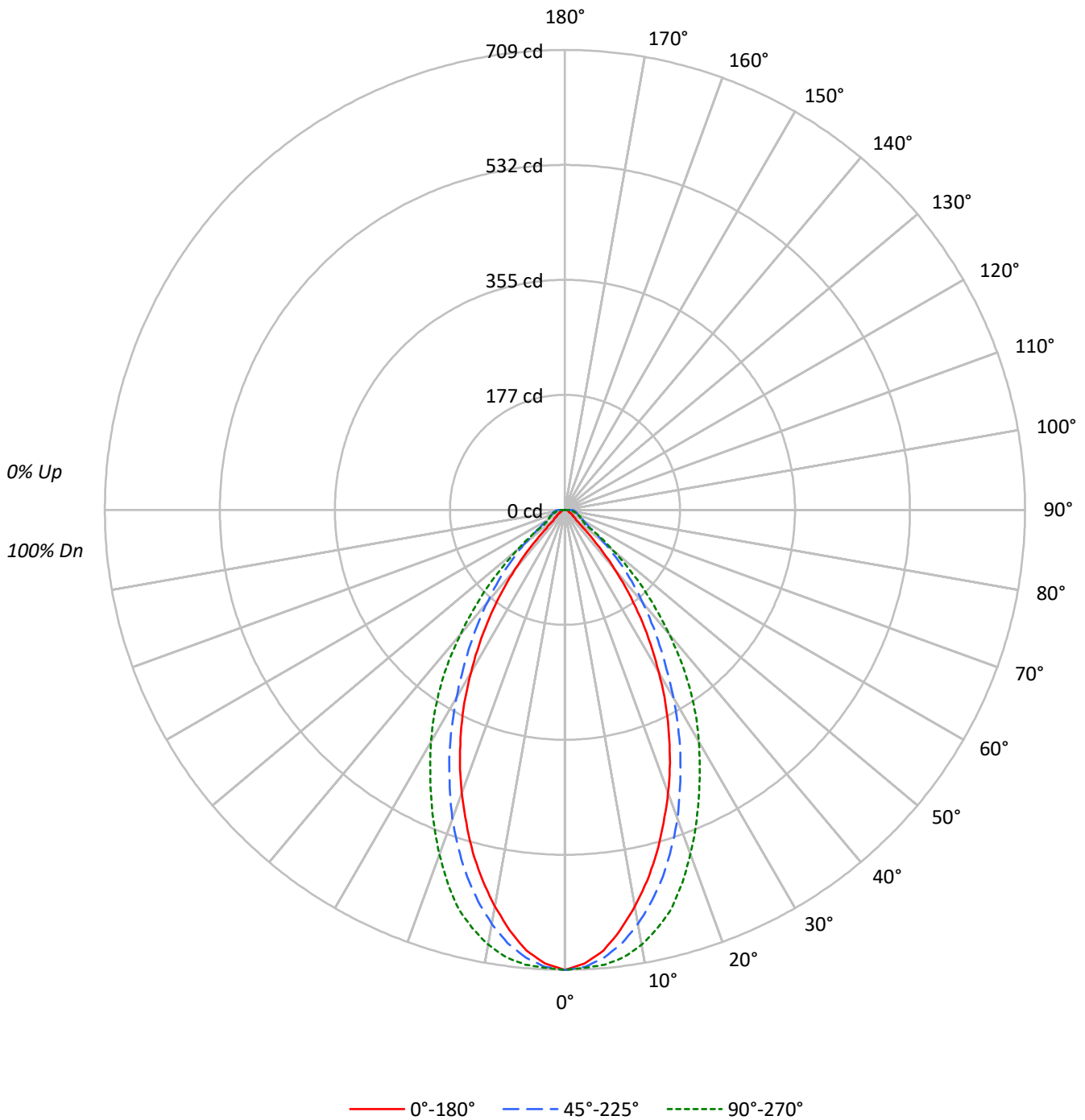
Lumens per Lamp: N/A
Luminaire Lumens: 764.5 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13086	13086	13086
5°	12633	12835	13036
10°	11634	12144	12754
15°	10459	11160	12148
20°	9125	9952	11099
25°	7718	8576	9932
30°	6166	7121	8800
35°	4559	5724	7560
40°	2881	4483	6022
45°	1135	3369	4431
50°	586	2262	2730
55°	479	1486	1222
60°	351	1203	1103
65°	297	1126	1126
70°	291	1171	1101
75°	385	1355	1162
80°	574	1732	1296
85°	868	2879	1736

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 5753 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.9	8.5
10°-20°	163.8	21.4
20°-30°	194.7	25.5
30°-40°	162.0	21.2
40°-50°	90.5	11.8
50°-60°	36.5	4.8
60°-70°	23.4	3.1
70°-80°	17.5	2.3
80°-90°	11.2	1.5
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°	423.4	55.4
0°-40°	585.4	76.6
0°-60°	712.4	93.2
0°-90°	764.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	764.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	682	694	693	698	704	63
15°	548	564	584	614	636	152
25°	379	394	421	454	488	173
35°	202	222	254	296	336	126
45°	44	73	129	151	170	41
55°	15	31	46	45	38	13
65°	7	27	26	24	26	7
75°	5	19	19	18	16	6
85°	4	12	14	12	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	709.2	709.2	709.2	709.2	709.2
2.5°	699.7	710.6	705.1	705.1	706.5
5°	682.0	694.3	692.9	698.3	703.8
7.5°	653.5	667.1	673.9	686.1	695.6
10°	620.9	635.9	648.1	667.1	680.7
12.5°	585.6	600.5	618.2	642.6	660.3
15°	547.5	563.8	584.2	614.1	635.9
17.5°	505.4	523.1	546.2	578.8	601.9
20°	464.7	482.3	506.8	539.4	565.2
22.5°	422.5	437.5	463.3	495.9	527.2
25°	379.1	394.0	421.2	453.8	487.8
27.5°	335.6	350.5	377.7	411.7	449.7
30°	289.4	305.7	334.2	372.3	413.0
32.5°	245.9	262.2	292.1	334.2	375.0
35°	202.4	221.5	254.1	296.2	335.6
37.5°	160.3	182.1	218.7	258.1	293.5
40°	119.6	142.7	186.1	220.1	250.0
42.5°	78.8	106.0	156.2	184.8	207.9
45°	43.5	73.4	129.1	150.8	169.8
47.5°	24.5	47.6	101.9	119.6	130.4
50°	20.4	35.3	78.8	91.0	95.1
52.5°	16.3	32.6	59.8	66.6	63.9
55°	14.9	31.2	46.2	44.8	38.0
57.5°	12.2	31.2	36.7	32.6	32.6
60°	9.5	29.9	32.6	28.5	29.9
62.5°	8.2	28.5	29.9	27.2	27.2
65°	6.8	27.2	25.8	24.5	25.8
67.5°	5.4	24.5	24.5	23.1	23.1
70°	5.4	23.1	21.7	20.4	20.4
72.5°	5.4	20.4	20.4	19.0	19.0
75°	5.4	19.0	19.0	17.7	16.3
77.5°	5.4	16.3	17.7	16.3	14.9
80°	5.4	14.9	16.3	14.9	12.2
82.5°	5.4	13.6	14.9	13.6	10.9
85°	4.1	12.2	13.6	12.2	8.2
87.5°	4.1	12.2	13.6	10.9	6.8
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	7.29	8.51	7.66	8.82	9.14	8.37	9.59	8.74	9.90	10.22
	3H	8.63	9.71	9.01	10.04	10.41	10.41	11.49	10.79	11.82	12.19
	4H	9.20	10.21	9.60	10.56	10.94	11.36	12.37	11.76	12.72	13.11
	6H	9.76	10.69	10.18	11.06	11.46	12.30	13.23	12.72	13.60	14.00
	8H	10.08	10.96	10.52	11.36	11.76	12.75	13.63	13.19	14.02	14.43
	12H	10.39	11.23	10.83	11.62	12.05	13.18	14.02	13.61	14.40	14.83
4H	2H	8.26	9.27	8.66	9.62	10.00	9.05	10.06	9.45	10.41	10.80
	3H	10.29	11.12	10.70	11.52	11.93	11.33	12.17	11.75	12.57	12.98
	4H	11.37	12.11	11.80	12.53	12.98	12.48	13.23	12.92	13.65	14.10
	6H	12.23	12.88	12.70	13.33	13.80	13.65	14.30	14.11	14.75	15.21
	8H	12.64	13.25	13.11	13.70	14.17	14.21	14.82	14.68	15.27	15.74
	12H	13.03	13.56	13.51	14.04	14.52	14.76	15.30	15.25	15.78	16.25
8H	4H	12.14	12.74	12.61	13.19	13.66	13.04	13.64	13.51	14.09	14.56
	6H	13.48	13.97	13.98	14.47	14.95	14.49	14.98	14.99	15.48	15.96
	8H	14.19	14.64	14.72	15.15	15.65	15.25	15.70	15.77	16.21	16.71
	12H	14.88	15.28	15.40	15.77	16.35	16.04	16.43	16.56	16.93	17.50
12H	4H	12.29	12.83	12.78	13.31	13.79	13.14	13.68	13.63	14.16	14.64
	6H	13.80	14.24	14.32	14.76	15.25	14.71	15.16	15.24	15.67	16.17
	8H	14.70	15.09	15.22	15.59	16.16	15.62	16.01	16.14	16.51	17.08