

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: P1055270

Luminaire Tested: S122R3DR-S865D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055270
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S865D935-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

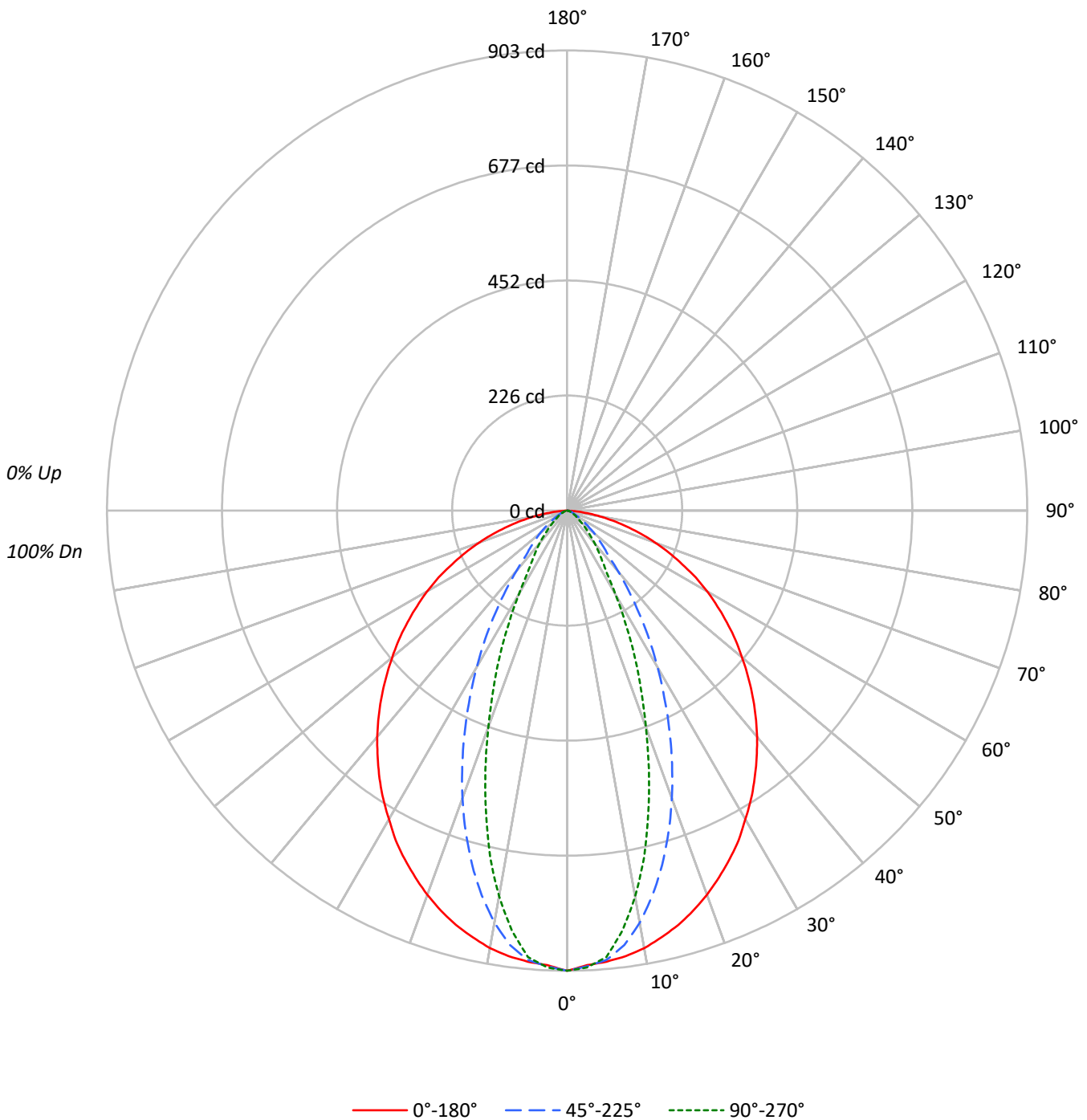
Lumens per Lamp: N/A
Luminaire Lumens: 1034.7 lumens
Efficiency: N/A
Efficacy: 29.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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	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	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45					45			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17106	17106	17106
5°	16898	16835	16728
10°	16774	15794	14794
15°	16515	14128	12067
20°	16174	12113	9101
25°	15774	9923	6499
30°	15298	7747	4139
35°	14842	5680	2764
40°	14340	3831	2080
45°	13785	2698	1482
50°	13208	2054	1043
55°	12644	1427	766
60°	12031	962	629
65°	11158	695	498
70°	10176	554	427
75°	8828	483	322
80°	7005	360	360
85°	3848	478	239

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13785 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	8.0
10°-20°	202.6	19.6
20°-30°	231.4	22.4
30°-40°	196.3	19.0
40°-50°	146.5	14.2
50°-60°	94.6	9.1
60°-70°	52.8	5.1
70°-80°	23.2	2.2
80°-90°	4.8	0.5
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°	516.6	49.9
0°-40°	712.9	68.9
0°-60°	954.0	92.2
0°-90°	1034.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1034.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	888	900	885	876	880	84
15°	842	821	720	644	615	237
25°	755	666	475	347	311	347
35°	642	484	246	134	120	401
45°	514	305	101	65	55	397
55°	383	145	43	27	23	342
65°	249	53	16	12	11	248
75°	121	11	7	6	4	129
85°	18	1	2	1	1	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.9	902.9	902.9	902.9	902.9
2.5°	892.9	906.2	895.1	895.1	897.3
5°	888.5	899.5	885.2	876.3	879.6
7.5°	881.8	889.6	859.7	833.1	830.9
10°	871.9	875.2	821.0	780.0	769.0
12.5°	857.5	849.7	773.4	715.9	697.1
15°	842.0	821.0	720.3	643.9	615.2
17.5°	823.2	785.6	661.6	568.7	533.3
20°	802.2	749.1	600.8	490.2	451.4
22.5°	778.9	708.1	537.7	416.0	377.3
25°	754.6	666.1	474.7	347.4	310.9
27.5°	729.1	621.8	412.7	285.5	245.6
30°	699.3	576.5	354.1	225.7	189.2
32.5°	671.6	528.9	299.8	174.8	143.8
35°	641.7	483.5	245.6	133.9	119.5
37.5°	610.8	438.1	198.1	112.9	100.7
40°	579.8	392.8	154.9	95.2	84.1
42.5°	547.7	348.5	119.5	79.7	68.6
45°	514.5	305.4	100.7	65.3	55.3
47.5°	481.3	262.2	84.1	52.0	44.3
50°	448.1	221.3	69.7	40.9	35.4
52.5°	416.0	182.6	55.3	33.2	28.8
55°	382.8	144.9	43.2	26.6	23.2
57.5°	349.6	112.9	33.2	22.1	19.9
60°	317.5	85.2	25.4	17.7	16.6
62.5°	284.4	68.6	19.9	14.4	13.3
65°	248.9	53.1	15.5	12.2	11.1
67.5°	216.9	38.7	12.2	10.0	8.9
70°	183.7	26.6	10.0	8.9	7.7
72.5°	151.6	16.6	7.7	6.6	6.6
75°	120.6	11.1	6.6	5.5	4.4
77.5°	91.8	6.6	4.4	4.4	3.3
80°	64.2	4.4	3.3	3.3	3.3
82.5°	39.8	3.3	2.2	2.2	2.2
85°	17.7	1.1	2.2	1.1	1.1
87.5°	3.3	1.1	1.1	1.1	1.1
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	18.12	19.44	18.48	19.75	20.07	4.42	5.74	4.78	6.05	6.37
	3H	20.59	21.76	20.97	22.09	22.45	5.28	6.45	5.66	6.78	7.14
	4H	21.54	22.64	21.95	22.99	23.37	5.55	6.64	5.95	6.99	7.37
	6H	22.23	23.23	22.65	23.60	24.00	5.74	6.74	6.15	7.11	7.50
	8H	22.43	23.38	22.86	23.77	24.17	5.81	6.76	6.24	7.15	7.56
	12H	22.51	23.42	22.94	23.80	24.23	5.83	6.74	6.27	7.12	7.55
4H	2H	17.90	18.99	18.31	19.35	19.73	4.99	6.09	5.40	6.44	6.82
	3H	20.39	21.28	20.80	21.69	22.09	6.03	6.93	6.44	7.33	7.73
	4H	21.33	22.13	21.77	22.55	22.99	6.39	7.19	6.83	7.61	8.06
	6H	22.08	22.78	22.55	23.22	23.69	6.68	7.37	7.15	7.82	8.29
	8H	22.33	22.97	22.80	23.42	23.89	6.78	7.42	7.25	7.87	8.34
	12H	22.46	23.02	22.94	23.51	23.98	6.82	7.39	7.31	7.88	8.35
8H	4H	21.20	21.84	21.67	22.29	22.76	6.76	7.41	7.23	7.86	8.33
	6H	21.94	22.46	22.44	22.96	23.44	7.12	7.64	7.62	8.14	8.62
	8H	22.18	22.65	22.70	23.17	23.66	7.26	7.73	7.78	8.24	8.74
	12H	22.33	22.74	22.84	23.24	23.81	7.34	7.75	7.86	8.25	8.82
12H	4H	21.15	21.72	21.64	22.20	22.68	6.89	7.45	7.37	7.94	8.41
	6H	21.87	22.35	22.40	22.86	23.35	7.24	7.71	7.76	8.22	8.72
	8H	22.14	22.55	22.65	23.05	23.62	7.42	7.83	7.93	8.33	8.90