

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: P1439713

Luminaire Tested: S122DR-S865D940-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439713
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2602-702-1)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-S865D940-X4F0-XX-UDD-FLB-W
Description: DEFINE 2, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

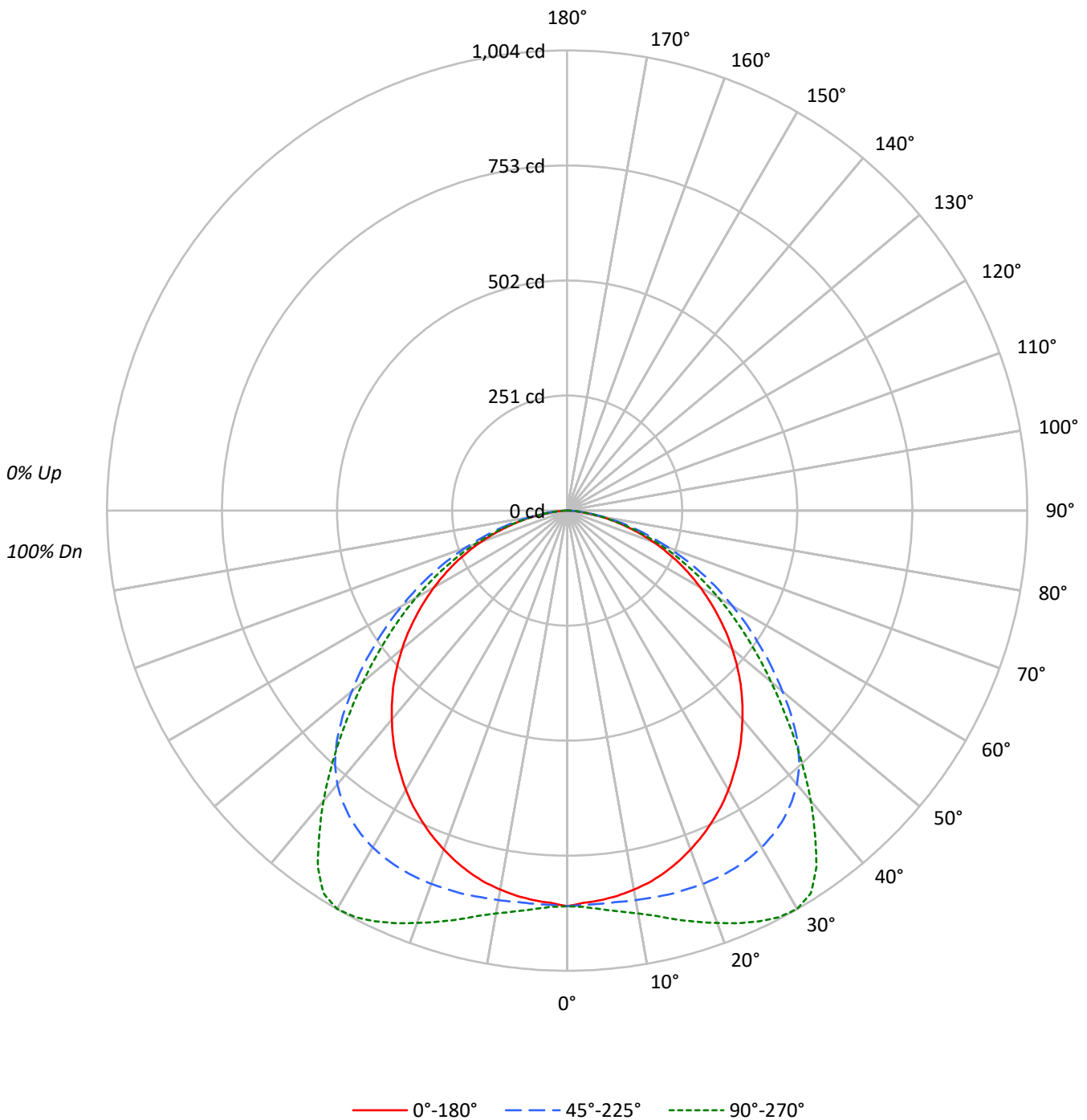
Lumens per Lamp: N/A
Luminaire Lumens: 2654.9 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.56 / 1.51
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (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	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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85													85															
2	100	91	85	79	97	90	84	78	86	81	76	83	79	75	80	76	73	71													71															
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60													60															
4	83	71	63	56	81	70	62	56	68	60	55	65	59	54	63	58	53	51													51															
5	76	64	55	48	74	63	54	48	61	53	47	59	52	47	57	51	46	44													44															
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39													39															
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34													34															
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30													30															
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27													27															
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25													25															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16354	16354	16354
5°	16224	16375	16609
10°	16152	16606	17168
15°	16050	16998	18120
20°	15865	17472	19305
25°	15651	18022	20672
30°	15397	18565	21953
35°	15084	19030	21937
40°	14713	19293	20461
45°	14345	19037	18737
50°	13862	18065	17104
55°	13312	16945	15719
60°	12716	15778	14463
65°	12028	14543	13184
70°	11068	12995	11816
75°	9780	11258	10190
80°	8085	8936	8085
85°	5369	5848	5608

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 19189 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	3.1
10°-20°	246.6	9.3
20°-30°	400.1	15.1
30°-40°	506.2	19.1
40°-50°	507.0	19.1
50°-60°	424.6	16.0
60°-70°	299.3	11.3
70°-80°	154.4	5.8
80°-90°	34.2	1.3
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°	729.2	27.5
0°-40°	1235.4	46.5
0°-60°	2167.0	81.6
0°-90°	2654.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2654.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	863	863	863	863	863	
5°	853	868	861	866	873	81
15°	818	842	867	901	924	231
25°	749	789	862	946	989	345
35°	652	705	823	929	948	408
45°	535	592	710	716	699	412
55°	403	452	513	492	476	361
65°	268	299	324	304	294	265
75°	134	147	154	143	139	142
85°	25	27	27	27	26	32
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	863.2	863.2	863.2	863.2	863.2
2.5°	856.5	869.9	861.0	862.1	865.5
5°	853.1	867.7	861.0	865.5	873.3
7.5°	847.5	863.2	861.0	869.9	882.3
10°	839.6	857.6	863.2	878.9	892.4
12.5°	830.7	849.7	864.3	889.0	905.9
15°	818.3	841.9	866.6	901.4	923.8
17.5°	803.7	831.8	866.6	914.8	940.7
20°	786.9	819.4	866.6	926.1	957.5
22.5°	768.9	804.8	865.5	936.2	974.3
25°	748.7	789.1	862.1	946.3	988.9
27.5°	727.4	771.2	856.5	954.1	1000.2
30°	703.8	751.0	848.6	957.5	1003.5
32.5°	678.0	729.6	837.4	950.8	990.0
35°	652.2	704.9	822.8	929.4	948.5
37.5°	624.1	679.1	803.7	887.9	887.9
40°	594.9	651.1	780.1	830.7	827.3
42.5°	565.7	621.9	749.8	774.5	763.3
45°	535.4	591.6	710.5	716.2	699.3
47.5°	502.9	557.9	664.5	656.7	637.6
50°	470.3	524.2	612.9	599.4	580.3
52.5°	437.8	489.4	563.5	544.4	527.6
55°	403.0	452.4	513.0	491.7	475.9
57.5°	369.3	415.3	464.7	441.1	427.7
60°	335.6	377.2	416.4	394.0	381.7
62.5°	302.0	337.9	370.4	348.0	336.8
65°	268.3	298.6	324.4	304.2	294.1
67.5°	233.5	260.4	278.4	260.4	253.7
70°	199.8	221.1	234.6	218.9	213.3
72.5°	166.1	184.1	193.1	180.7	175.1
75°	133.6	147.0	153.8	142.6	139.2
77.5°	102.1	112.3	115.6	107.8	103.3
80°	74.1	79.7	81.9	76.3	74.1
82.5°	46.0	50.5	52.8	48.3	47.1
85°	24.7	26.9	26.9	26.9	25.8
87.5°	9.0	11.2	11.2	11.2	10.1
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	21.19	22.81	21.56	23.12	23.43	21.71	23.32	22.07	23.63	23.95
	3H	22.76	24.22	23.14	24.54	24.90	23.17	24.63	23.55	24.95	25.31
	4H	23.30	24.67	23.70	25.01	25.39	23.67	25.03	24.07	25.38	25.76
	6H	23.64	24.91	24.06	25.27	25.66	23.97	25.23	24.38	25.60	25.99
	8H	23.73	24.93	24.15	25.32	25.72	24.04	25.25	24.47	25.64	26.04
	12H	23.76	24.92	24.19	25.30	25.73	24.08	25.23	24.51	25.61	26.04
4H	2H	21.95	23.31	22.35	23.66	24.04	22.35	23.71	22.74	24.06	24.44
	3H	23.72	24.86	24.13	25.26	25.66	24.01	25.15	24.42	25.55	25.95
	4H	24.37	25.39	24.80	25.81	26.24	24.61	25.63	25.04	26.05	26.48
	6H	24.81	25.71	25.26	26.15	26.60	25.00	25.90	25.46	26.34	26.80
	8H	24.92	25.76	25.38	26.20	26.67	25.10	25.94	25.56	26.38	26.85
	12H	24.98	25.73	25.46	26.21	26.68	25.16	25.91	25.64	26.39	26.86
8H	4H	24.65	25.49	25.11	25.93	26.39	24.86	25.70	25.33	26.14	26.61
	6H	25.19	25.88	25.68	26.37	26.85	25.35	26.04	25.84	26.53	27.01
	8H	25.35	25.97	25.86	26.48	26.96	25.49	26.12	26.00	26.62	27.11
	12H	25.45	26.00	25.96	26.49	27.05	25.59	26.14	26.10	26.63	27.20
12H	4H	24.66	25.42	25.14	25.89	26.36	24.88	25.63	25.36	26.11	26.58
	6H	25.22	25.84	25.73	26.35	26.83	25.38	26.00	25.89	26.51	26.99
	8H	25.42	25.97	25.93	26.46	27.03	25.56	26.11	26.07	26.61	27.17