

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: P1217433

Luminaire Tested: S124DRP-S865D935-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217433
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S865D935-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

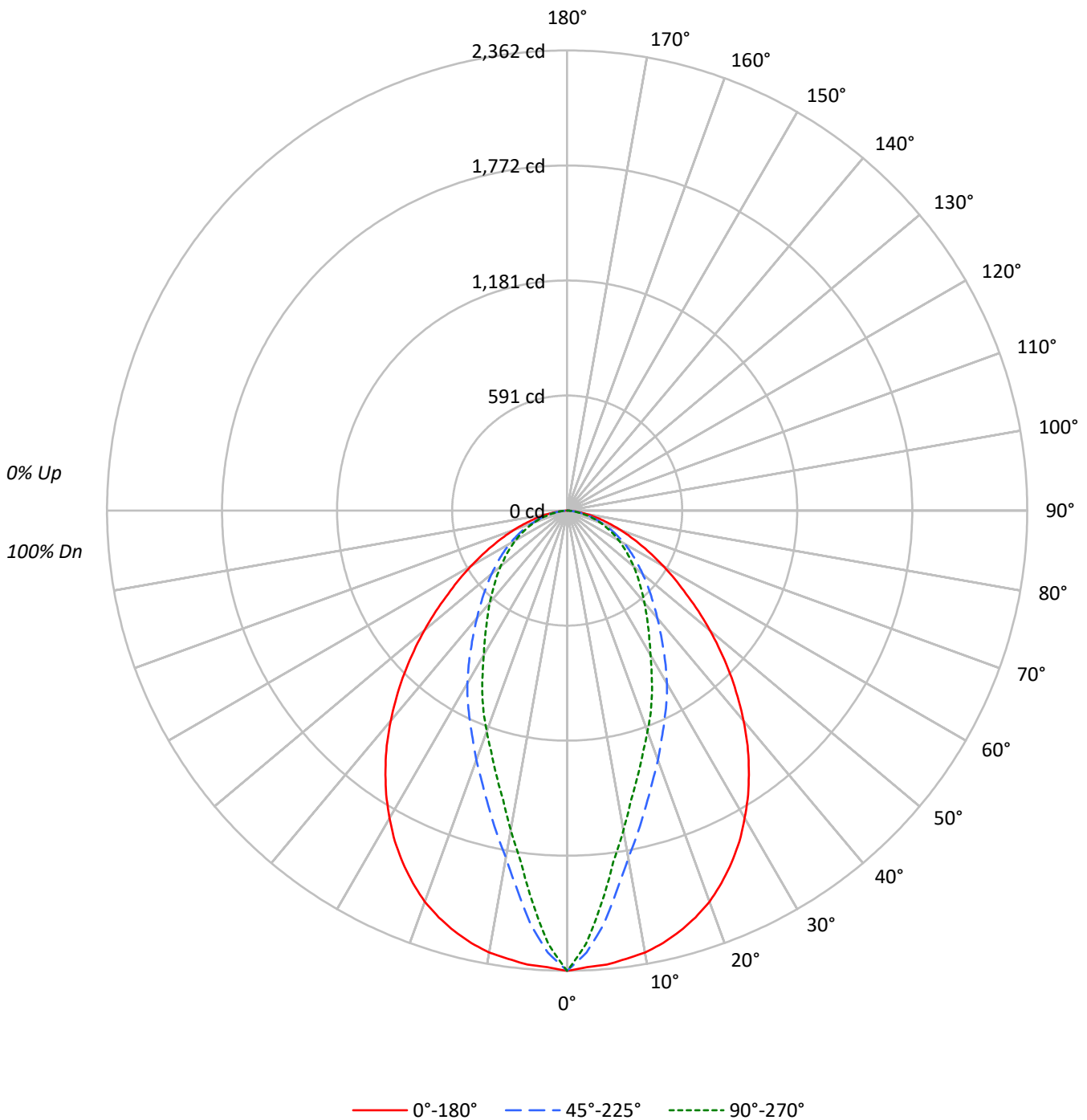
Lumens per Lamp: N/A
Luminaire Lumens: 3313.1 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57				57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45				45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41				41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37				37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34				34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20886	20886	20886
5°	20763	18944	17956
10°	20677	16240	14943
15°	20461	14329	12854
20°	20103	12821	11354
25°	19463	11538	10057
30°	18606	10460	8730
35°	17549	9274	7814
40°	16256	8308	7120
45°	14775	7557	6568
50°	13163	6953	6139
55°	11481	6462	5740
60°	10079	6016	5407
65°	8726	5550	5048
70°	7556	5028	4653
75°	6289	4441	4086
80°	4873	3600	3335
85°	3064	2424	2211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.7	6.0
10°-20°	469.8	14.2
20°-30°	600.3	18.1
30°-40°	609.7	18.4
40°-50°	540.4	16.3
50°-60°	424.7	12.8
60°-70°	289.2	8.7
70°-80°	148.5	4.5
80°-90°	32.9	1.0
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°	1267.8	38.3
0°-40°	1877.4	56.7
0°-60°	2842.6	85.8
0°-90°	3313.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3313.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2362	2362	2362	2362	2362	
5°	2340	2280	2134	2052	2023	222
15°	2235	1866	1566	1436	1404	630
25°	1995	1463	1183	1069	1031	917
35°	1626	1108	859	750	724	1015
45°	1182	798	604	542	525	910
55°	745	532	419	382	372	673
65°	417	322	265	246	241	417
75°	184	152	130	124	120	198
85°	30	28	24	24	22	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2362.3	2362.3	2362.3	2362.3	2362.3
2.5°	2345.7	2348.8	2270.8	2242.7	2226.1
5°	2339.5	2280.2	2134.5	2052.4	2023.2
7.5°	2320.7	2191.7	1961.9	1848.5	1818.3
10°	2303.1	2090.8	1808.9	1696.6	1664.4
12.5°	2273.9	1979.5	1686.2	1557.2	1518.7
15°	2235.4	1866.2	1565.5	1436.5	1404.3
17.5°	2189.7	1758.0	1456.3	1332.5	1297.2
20°	2136.6	1658.1	1362.7	1235.8	1206.7
22.5°	2070.0	1559.3	1267.0	1152.6	1120.3
25°	1995.1	1462.6	1182.7	1069.3	1030.9
27.5°	1915.0	1368.9	1104.7	978.8	938.3
30°	1822.5	1279.5	1024.6	892.5	855.1
32.5°	1728.8	1191.1	940.4	815.5	785.4
35°	1625.9	1107.8	859.2	750.0	724.0
37.5°	1521.8	1027.7	786.4	690.7	667.8
40°	1408.5	949.7	719.8	635.6	616.9
42.5°	1295.1	871.7	659.5	586.7	569.0
45°	1181.7	797.9	604.4	542.0	525.3
47.5°	1067.3	725.0	553.4	498.3	484.7
50°	957.0	656.4	505.5	457.7	446.3
52.5°	849.9	591.9	459.8	419.2	406.7
55°	744.8	531.6	419.2	381.8	372.4
57.5°	655.3	475.4	378.6	346.4	339.1
60°	570.0	421.3	340.2	313.1	305.8
62.5°	489.9	371.4	301.7	279.8	274.6
65°	417.1	322.5	265.3	246.5	241.3
67.5°	350.6	277.7	227.8	214.3	210.1
70°	292.3	233.0	194.5	183.1	180.0
72.5°	234.0	190.4	161.2	152.9	149.8
75°	184.1	151.9	130.0	123.8	119.6
77.5°	138.3	115.5	99.9	94.7	91.5
80°	95.7	82.2	70.7	68.7	65.5
82.5°	60.3	52.0	45.8	44.7	41.6
85°	30.2	28.1	23.9	23.9	21.8
87.5°	10.4	9.4	9.4	9.4	8.3
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	19.46	20.95	19.83	21.26	21.58	16.79	18.28	17.15	18.59	18.90
	3H	21.06	22.39	21.43	22.72	23.08	18.39	19.72	18.77	20.05	20.41
	4H	21.59	22.84	21.99	23.18	23.56	18.95	20.19	19.35	20.54	20.92
	6H	21.92	23.07	22.33	23.44	23.83	19.30	20.45	19.71	20.82	21.21
	8H	21.99	23.09	22.42	23.48	23.88	19.39	20.49	19.81	20.88	21.28
	12H	22.02	23.07	22.45	23.46	23.89	19.42	20.47	19.85	20.86	21.29
4H	2H	19.69	20.94	20.09	21.29	21.67	17.46	18.71	17.86	19.06	19.44
	3H	21.48	22.51	21.89	22.91	23.31	19.25	20.29	19.66	20.69	21.09
	4H	22.12	23.05	22.55	23.46	23.90	19.92	20.85	20.35	21.26	21.70
	6H	22.56	23.37	23.02	23.82	24.28	20.37	21.18	20.83	21.63	22.09
	8H	22.67	23.43	23.14	23.87	24.34	20.49	21.24	20.95	21.69	22.16
	12H	22.73	23.41	23.21	23.89	24.36	20.55	21.22	21.03	21.70	22.17
8H	4H	22.22	22.98	22.68	23.42	23.89	20.22	20.97	20.68	21.42	21.88
	6H	22.74	23.36	23.24	23.85	24.33	20.76	21.39	21.26	21.88	22.36
	8H	22.89	23.45	23.41	23.96	24.45	20.93	21.49	21.45	22.00	22.49
	12H	22.99	23.49	23.50	23.98	24.54	21.04	21.53	21.55	22.02	22.59
12H	4H	22.21	22.89	22.69	23.36	23.84	20.24	20.91	20.72	21.39	21.86
	6H	22.73	23.29	23.25	23.80	24.29	20.80	21.36	21.32	21.87	22.36
	8H	22.92	23.42	23.43	23.91	24.48	21.02	21.51	21.53	22.00	22.57