

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: P1217427

Luminaire Tested: S124DRP-S865D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217427
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-S865D830-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

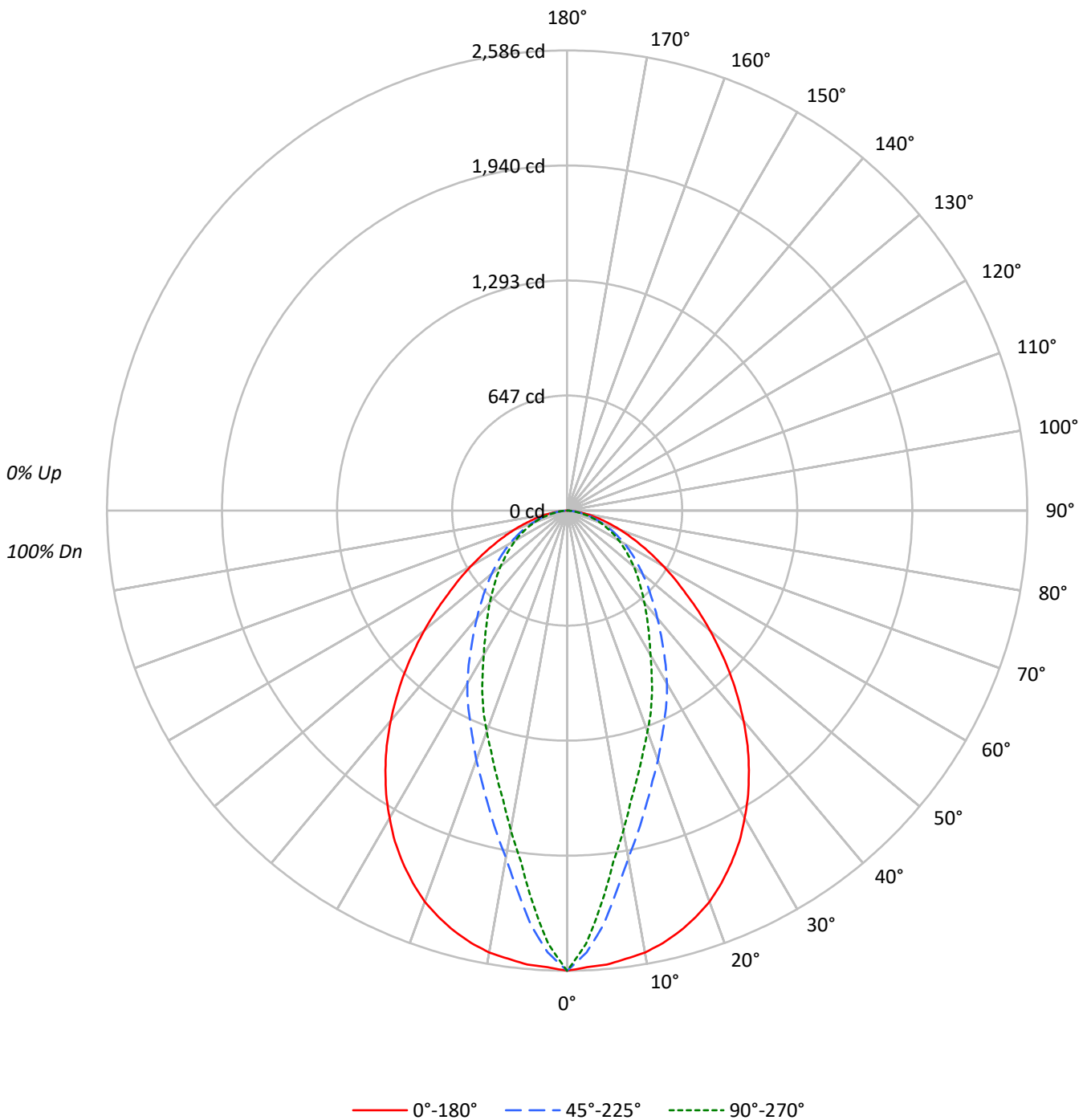
Lumens per Lamp: N/A
Luminaire Lumens: 3626.9 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (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	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°	22865	22865	22865
5°	22729	20739	19657
10°	22635	17779	16357
15°	22400	15687	14071
20°	22007	14035	12428
25°	21307	12630	11009
30°	20368	11452	9556
35°	19211	10152	8555
40°	17796	9095	7794
45°	16175	8272	7191
50°	14409	7612	6719
55°	12567	7074	6284
60°	11034	6585	5920
65°	9552	6075	5527
70°	8272	5504	5093
75°	6887	4861	4475
80°	5336	3941	3651
85°	3348	2658	2424

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16175 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.5	6.0
10°-20°	514.2	14.2
20°-30°	657.1	18.1
30°-40°	667.4	18.4
40°-50°	591.6	16.3
50°-60°	464.9	12.8
60°-70°	316.6	8.7
70°-80°	162.5	4.5
80°-90°	36.0	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°	1387.8	38.3
0°-40°	2055.2	56.7
0°-60°	3111.8	85.8
0°-90°	3626.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3626.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2586	2586	2586	2586	2586	
5°	2561	2496	2337	2247	2215	243
15°	2447	2043	1714	1573	1537	689
25°	2184	1601	1295	1171	1128	1004
35°	1780	1213	941	821	793	1111
45°	1294	873	662	593	575	997
55°	815	582	459	418	408	736
65°	457	353	290	270	264	457
75°	202	166	142	136	131	216
85°	33	31	26	26	24	44
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2586.1	2586.1	2586.1	2586.1	2586.1
2.5°	2567.9	2571.3	2485.9	2455.1	2436.9
5°	2561.0	2496.1	2336.7	2246.7	2214.8
7.5°	2540.5	2399.3	2147.7	2023.5	1990.5
10°	2521.2	2288.9	1980.3	1857.3	1822.0
12.5°	2489.3	2167.0	1845.9	1704.7	1662.6
15°	2447.2	2042.9	1713.8	1572.6	1537.3
17.5°	2397.0	1924.5	1594.2	1458.7	1420.0
20°	2339.0	1815.2	1491.7	1352.8	1320.9
22.5°	2266.1	1707.0	1387.0	1261.7	1226.4
25°	2184.1	1601.1	1294.7	1170.6	1128.5
27.5°	2096.4	1498.6	1209.3	1071.6	1027.1
30°	1995.1	1400.7	1121.7	977.0	936.0
32.5°	1892.6	1303.9	1029.4	892.8	859.7
35°	1779.9	1212.8	940.6	821.0	792.6
37.5°	1666.0	1125.1	860.9	756.1	731.1
40°	1541.9	1039.7	788.0	695.8	675.3
42.5°	1417.7	954.3	722.0	642.2	622.9
45°	1293.6	873.4	661.6	593.3	575.1
47.5°	1168.3	793.7	605.8	545.5	530.7
50°	1047.6	718.5	553.4	501.0	488.5
52.5°	930.4	647.9	503.3	458.9	445.2
55°	815.3	581.9	458.9	417.9	407.7
57.5°	717.4	520.4	414.5	379.2	371.2
60°	624.0	461.2	372.4	342.8	334.8
62.5°	536.3	406.5	330.2	306.3	300.6
65°	456.6	353.0	290.4	269.9	264.2
67.5°	383.8	304.0	249.4	234.6	230.0
70°	320.0	255.1	212.9	200.4	197.0
72.5°	256.2	208.4	176.5	167.4	164.0
75°	201.6	166.3	142.3	135.5	131.0
77.5°	151.5	126.4	109.3	103.6	100.2
80°	104.8	90.0	77.4	75.2	71.7
82.5°	66.0	56.9	50.1	49.0	45.5
85°	33.0	30.7	26.2	26.2	23.9
87.5°	11.4	10.2	10.2	10.2	9.1
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	19.78	21.26	20.14	21.58	21.89	17.10	18.59	17.47	18.90	19.22
	3H	21.37	22.70	21.75	23.03	23.39	18.70	20.03	19.08	20.36	20.73
	4H	21.90	23.15	22.30	23.50	23.88	19.26	20.51	19.66	20.86	21.24
	6H	22.23	23.39	22.64	23.75	24.15	19.61	20.77	20.03	21.14	21.53
	8H	22.31	23.41	22.74	23.80	24.20	19.70	20.80	20.13	21.19	21.59
	12H	22.34	23.39	22.77	23.77	24.20	19.74	20.79	20.17	21.17	21.60
4H	2H	20.01	21.26	20.41	21.61	21.98	17.78	19.03	18.18	19.38	19.76
	3H	21.79	22.83	22.20	23.23	23.63	19.57	20.60	19.98	21.00	21.40
	4H	22.43	23.36	22.86	23.78	24.22	20.23	21.16	20.66	21.58	22.02
	6H	22.88	23.69	23.33	24.13	24.59	20.69	21.50	21.14	21.94	22.40
	8H	22.99	23.75	23.45	24.19	24.66	20.80	21.56	21.27	22.00	22.47
	12H	23.05	23.72	23.53	24.20	24.67	20.86	21.54	21.35	22.02	22.49
8H	4H	22.53	23.29	23.00	23.74	24.20	20.53	21.29	20.99	21.73	22.20
	6H	23.05	23.68	23.55	24.17	24.65	21.08	21.70	21.58	22.19	22.67
	8H	23.21	23.77	23.72	24.28	24.77	21.25	21.80	21.76	22.32	22.80
	12H	23.31	23.80	23.82	24.29	24.86	21.35	21.85	21.86	22.34	22.90
12H	4H	22.53	23.20	23.01	23.68	24.15	20.55	21.23	21.04	21.71	22.18
	6H	23.05	23.61	23.56	24.12	24.60	21.12	21.68	21.63	22.19	22.67
	8H	23.24	23.73	23.75	24.22	24.79	21.33	21.82	21.84	22.31	22.88