

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: P1217421

Luminaire Tested: S124DRP-S675D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217421
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-S675D850-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

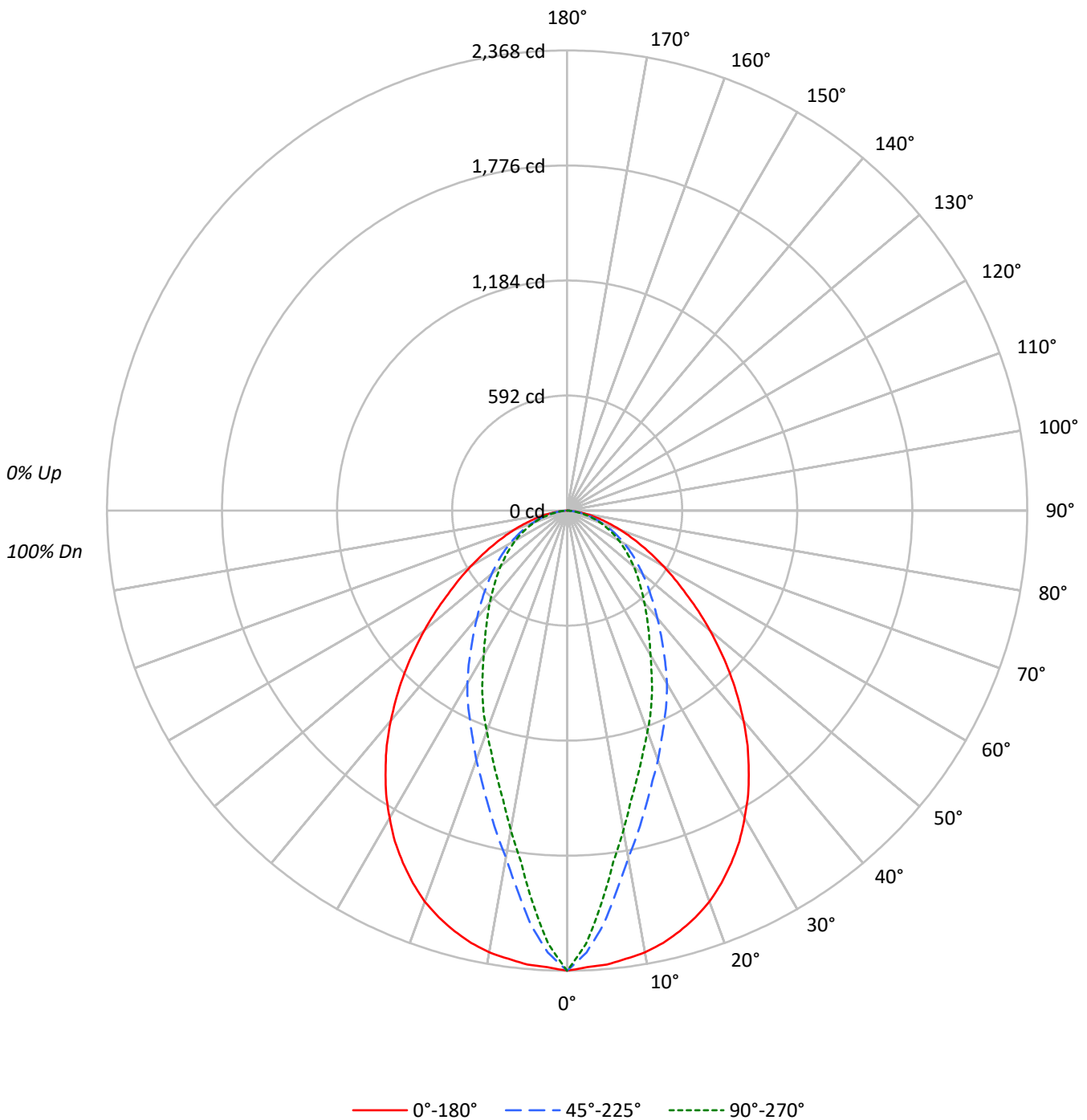
Lumens per Lamp: N/A
Luminaire Lumens: 3320.8 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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

TEST NUMBER: P1217421

CATALOG NUMBER: S124DRP-S675D850-X4F0-XX-UDD-G-W

Luminous Intensity Polar Plot





TEST NUMBER: P1217421

CATALOG NUMBER: S124DRP-S675D850-X4F0-XX-UDD-G-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20935	20935	20935
5°	20811	18988	17998
10°	20724	16278	14977
15°	20509	14363	12884
20°	20150	12851	11380
25°	19509	11565	10079
30°	18649	10485	8749
35°	17589	9295	7833
40°	16293	8327	7136
45°	14809	7575	6583
50°	13194	6970	6152
55°	11507	6477	5754
60°	10104	6028	5420
65°	8747	5563	5061
70°	7574	5041	4663
75°	6303	4451	4096
80°	4883	3610	3345
85°	3064	2435	2222

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14809 cd/sqm

TEST NUMBER: P1217421

CATALOG NUMBER: S124DRP-S675D850-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.2	6.0
10°-20°	470.8	14.2
20°-30°	601.7	18.1
30°-40°	611.1	18.4
40°-50°	541.7	16.3
50°-60°	425.7	12.8
60°-70°	289.9	8.7
70°-80°	148.8	4.5
80°-90°	33.0	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°	1270.7	38.3
0°-40°	1881.8	56.7
0°-60°	2849.1	85.8
0°-90°	3320.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3320.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2368	2368	2368	2368	2368	
5°	2345	2285	2140	2057	2028	223
15°	2241	1870	1569	1440	1408	631
25°	2000	1466	1186	1072	1033	919
35°	1630	1110	861	752	726	1017
45°	1184	800	606	543	526	912
55°	746	533	420	383	373	674
65°	418	323	266	247	242	418
75°	184	152	130	124	120	198
85°	30	28	24	24	22	41
90°	0	0	0	0	0	



TEST NUMBER: P1217421

CATALOG NUMBER: S124DRP-S675D850-X4F0-XX-UDD-G-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2367.8	2367.8	2367.8	2367.8	2367.8
2.5°	2351.1	2354.3	2276.1	2247.9	2231.2
5°	2344.9	2285.4	2139.5	2057.1	2027.9
7.5°	2326.1	2196.8	1966.4	1852.8	1822.5
10°	2308.4	2095.7	1813.1	1700.5	1668.2
12.5°	2279.2	1984.1	1690.1	1560.8	1522.2
15°	2240.6	1870.5	1569.2	1439.9	1407.6
17.5°	2194.7	1762.0	1459.7	1335.6	1300.2
20°	2141.6	1662.0	1365.8	1238.6	1209.5
22.5°	2074.8	1562.9	1269.9	1155.2	1122.9
25°	1999.8	1465.9	1185.5	1071.8	1033.2
27.5°	1919.5	1372.1	1107.3	981.1	940.5
30°	1826.7	1282.4	1027.0	894.6	857.0
32.5°	1732.9	1193.8	942.5	817.4	787.2
35°	1629.6	1110.4	861.2	751.7	725.7
37.5°	1525.4	1030.1	788.2	692.3	669.4
40°	1411.7	951.9	721.5	637.0	618.3
42.5°	1298.1	873.7	661.0	588.0	570.3
45°	1184.4	799.7	605.8	543.2	526.5
47.5°	1069.7	726.7	554.7	499.4	485.9
50°	959.2	657.9	506.7	458.8	447.3
52.5°	851.8	593.3	460.8	420.2	407.7
55°	746.5	532.8	420.2	382.6	373.3
57.5°	656.9	476.5	379.5	347.2	339.9
60°	571.4	422.3	340.9	313.8	306.5
62.5°	491.1	372.2	302.4	280.5	275.3
65°	418.1	323.2	265.9	247.1	241.9
67.5°	351.4	278.4	228.3	214.8	210.6
70°	293.0	233.5	195.0	183.5	180.4
72.5°	234.6	190.8	161.6	153.3	150.1
75°	184.5	152.2	130.3	124.1	119.9
77.5°	138.7	115.7	100.1	94.9	91.8
80°	95.9	82.4	70.9	68.8	65.7
82.5°	60.5	52.1	45.9	44.8	41.7
85°	30.2	28.2	24.0	24.0	21.9
87.5°	10.4	9.4	9.4	9.4	8.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217421
 CATALOG NUMBER: S124DRP-S675D850-X4F0-XX-UDD-G-W

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	19.47	20.96	19.84	21.27	21.59	16.80	18.28	17.16	18.60	18.91
	3H	21.06	22.40	21.44	22.73	23.09	18.40	19.73	18.77	20.06	20.42
	4H	21.59	22.84	21.99	23.19	23.57	18.95	20.20	19.35	20.55	20.93
	6H	21.93	23.08	22.34	23.45	23.84	19.31	20.46	19.72	20.83	21.22
	8H	22.00	23.10	22.43	23.49	23.89	19.40	20.49	19.82	20.88	21.29
	12H	22.03	23.08	22.46	23.47	23.89	19.43	20.48	19.86	20.86	21.29
4H	2H	19.70	20.95	20.10	21.30	21.68	17.47	18.72	17.87	19.07	19.45
	3H	21.48	22.52	21.89	22.92	23.32	19.26	20.30	19.67	20.70	21.10
	4H	22.12	23.06	22.56	23.47	23.91	19.92	20.86	20.36	21.27	21.71
	6H	22.57	23.38	23.03	23.82	24.28	20.38	21.19	20.84	21.63	22.09
	8H	22.68	23.44	23.15	23.88	24.35	20.50	21.25	20.96	21.70	22.17
	12H	22.74	23.41	23.22	23.89	24.36	20.56	21.23	21.04	21.71	22.18
8H	4H	22.23	22.98	22.69	23.43	23.90	20.22	20.98	20.69	21.42	21.89
	6H	22.75	23.37	23.24	23.86	24.34	20.77	21.40	21.27	21.89	22.37
	8H	22.90	23.46	23.42	23.97	24.46	20.94	21.50	21.46	22.01	22.50
	12H	23.00	23.49	23.51	23.99	24.55	21.05	21.54	21.56	22.03	22.60
12H	4H	22.22	22.89	22.70	23.37	23.84	20.25	20.92	20.73	21.40	21.87
	6H	22.74	23.30	23.25	23.81	24.30	20.81	21.37	21.33	21.88	22.37
	8H	22.93	23.42	23.44	23.92	24.48	21.02	21.52	21.53	22.01	22.57