

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: P1439832

Luminaire Tested: S123DR-S675D830-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439832
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2603-719-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DR-S675D830-X4F0-XX-UDD-FLB-W
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

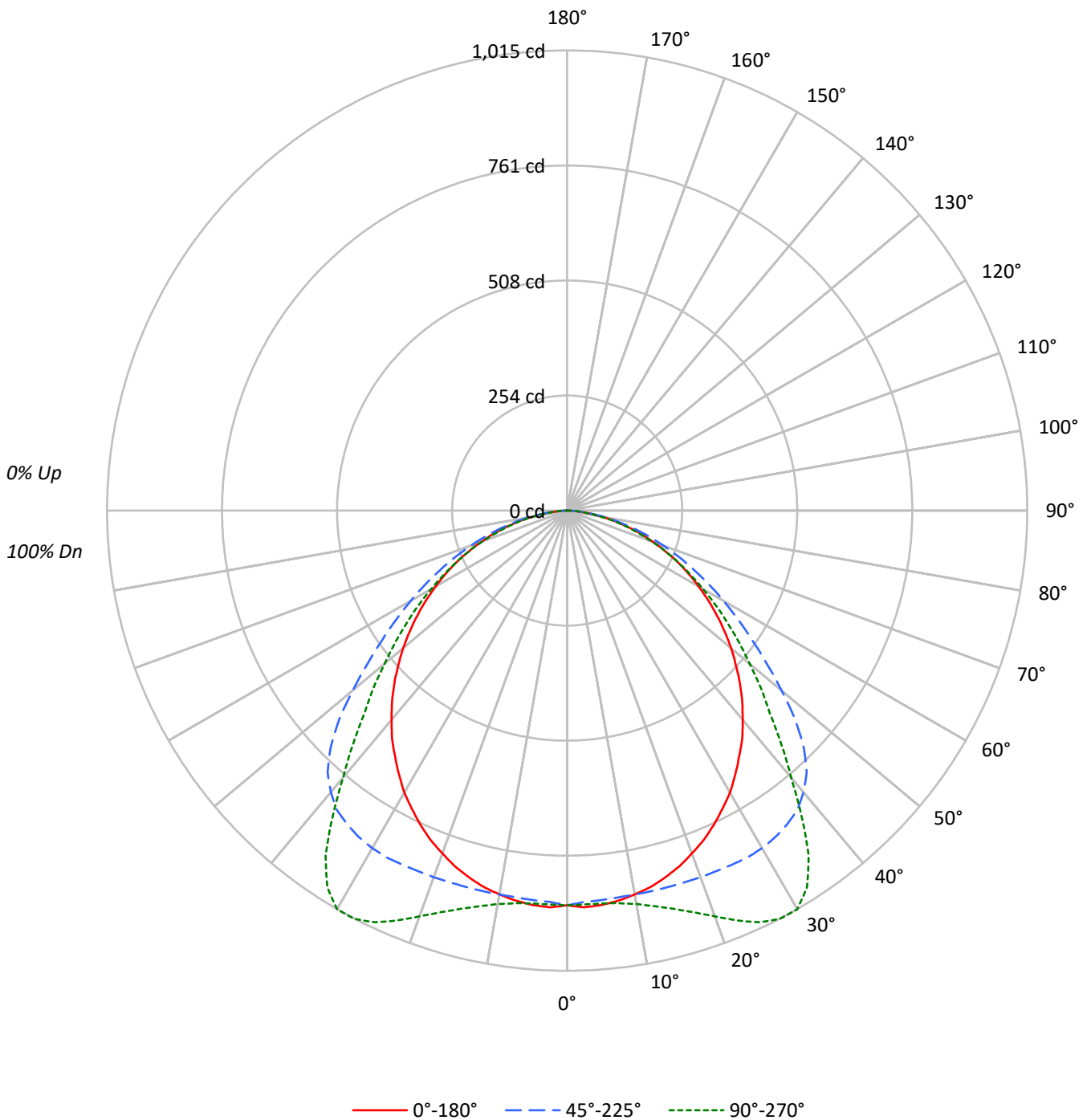
Lumens per Lamp: N/A
Luminaire Lumens: 2632.8 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10495	10495	10495
5°	10568	10437	10524
10°	10525	10525	10789
15°	10450	10731	11348
20°	10324	11042	12219
25°	10178	11460	13328
30°	10000	11968	14136
35°	9738	12441	13673
40°	9478	12764	12098
45°	9194	12585	10774
50°	8864	11582	9860
55°	8477	10483	9064
60°	8075	9594	8336
65°	7677	8784	7703
70°	7107	7963	6980
75°	6414	7085	6247
80°	5374	5936	5124
85°	4108	4357	3859

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	3.1
10°-20°	246.3	9.4
20°-30°	403.6	15.3
30°-40°	510.6	19.4
40°-50°	498.8	18.9
50°-60°	409.8	15.6
60°-70°	289.1	11.0
70°-80°	154.1	5.9
80°-90°	37.5	1.4
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°	732.8	27.8
0°-40°	1243.4	47.2
0°-60°	2152.1	81.7
0°-90°	2632.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2632.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	873	870	862	871	870	83
15°	837	842	860	898	909	236
25°	765	788	862	966	1002	352
35°	662	708	845	943	929	414
45°	539	600	738	666	632	415
55°	403	464	499	448	431	361
65°	269	308	308	281	270	266
75°	138	155	152	138	134	146
85°	30	32	32	29	28	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	870.5	870.5	870.5	870.5	870.5
2.5°	875.9	873.2	864.2	872.3	869.6
5°	873.2	869.6	862.4	871.4	869.6
7.5°	867.8	866.0	860.6	874.1	873.2
10°	859.7	858.8	859.7	879.5	881.3
12.5°	850.7	851.6	859.7	887.6	893.9
15°	837.2	841.7	859.7	898.4	909.2
17.5°	822.8	830.0	859.7	912.8	929.0
20°	804.7	817.3	860.6	928.1	952.4
22.5°	786.7	802.0	860.6	948.8	978.5
25°	765.1	787.6	861.5	965.9	1001.9
27.5°	741.7	768.7	862.4	979.4	1015.4
30°	718.3	750.7	859.7	984.8	1015.4
32.5°	690.4	730.0	854.3	975.8	984.8
35°	661.6	707.5	845.3	943.4	929.0
37.5°	634.6	683.2	833.6	884.0	849.8
40°	602.2	657.1	811.0	808.3	768.7
42.5°	571.6	629.2	782.2	731.8	699.4
45°	539.2	600.4	738.1	666.1	631.9
47.5°	505.0	568.9	682.3	604.0	579.7
50°	472.6	536.5	617.5	547.3	525.7
52.5°	437.5	502.3	555.4	496.9	478.0
55°	403.3	463.6	498.7	448.3	431.2
57.5°	369.1	425.8	446.5	402.4	388.9
60°	334.9	386.2	397.9	360.1	345.7
62.5°	301.6	349.3	352.9	319.6	307.0
65°	269.1	307.9	307.9	280.9	270.0
67.5°	234.9	268.2	266.4	241.2	234.9
70°	201.6	229.5	225.9	205.2	198.0
72.5°	170.1	190.8	188.1	171.9	163.8
75°	137.7	154.8	152.1	137.7	134.1
77.5°	107.1	118.8	116.1	106.2	103.5
80°	77.4	86.4	85.5	78.3	73.8
82.5°	52.2	56.7	55.8	51.3	48.6
85°	29.7	32.4	31.5	28.8	27.9
87.5°	11.7	13.5	14.4	13.5	12.6
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	19.81	21.41	20.17	21.73	22.04	19.53	21.14	19.90	21.45	21.77
	3H	21.38	22.82	21.75	23.15	23.51	21.05	22.49	21.42	22.82	23.18
	4H	21.93	23.29	22.33	23.63	24.01	21.58	22.94	21.98	23.29	23.67
	6H	22.29	23.55	22.70	23.92	24.31	21.94	23.20	22.35	23.56	23.96
	8H	22.39	23.59	22.82	23.98	24.38	22.03	23.24	22.46	23.62	24.02
	12H	22.45	23.60	22.88	23.98	24.41	22.09	23.24	22.52	23.62	24.05
4H	2H	20.45	21.80	20.84	22.15	22.53	20.23	21.59	20.63	21.94	22.32
	3H	22.25	23.39	22.66	23.78	24.18	21.95	23.08	22.36	23.48	23.88
	4H	22.94	23.96	23.37	24.38	24.81	22.58	23.61	23.02	24.02	24.46
	6H	23.42	24.31	23.88	24.75	25.21	23.04	23.94	23.50	24.38	24.83
	8H	23.55	24.39	24.01	24.83	25.30	23.17	24.00	23.63	24.45	24.91
	12H	23.64	24.39	24.12	24.86	25.33	23.25	24.00	23.73	24.48	24.94
8H	4H	23.20	24.04	23.67	24.48	24.95	22.89	23.73	23.35	24.17	24.63
	6H	23.80	24.49	24.29	24.98	25.45	23.45	24.14	23.95	24.63	25.11
	8H	23.99	24.61	24.50	25.12	25.60	23.63	24.25	24.14	24.76	25.25
	12H	24.13	24.68	24.64	25.17	25.73	23.76	24.31	24.27	24.80	25.36
12H	4H	23.22	23.97	23.70	24.45	24.92	22.92	23.67	23.40	24.14	24.61
	6H	23.83	24.45	24.34	24.96	25.44	23.50	24.12	24.01	24.63	25.11
	8H	24.07	24.62	24.58	25.11	25.67	23.72	24.27	24.23	24.77	25.33