

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: P1439837

Luminaire Tested: S123DR-S675D930-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439837
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-S675D930-X4F0-XX-UDD-FLB-W
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

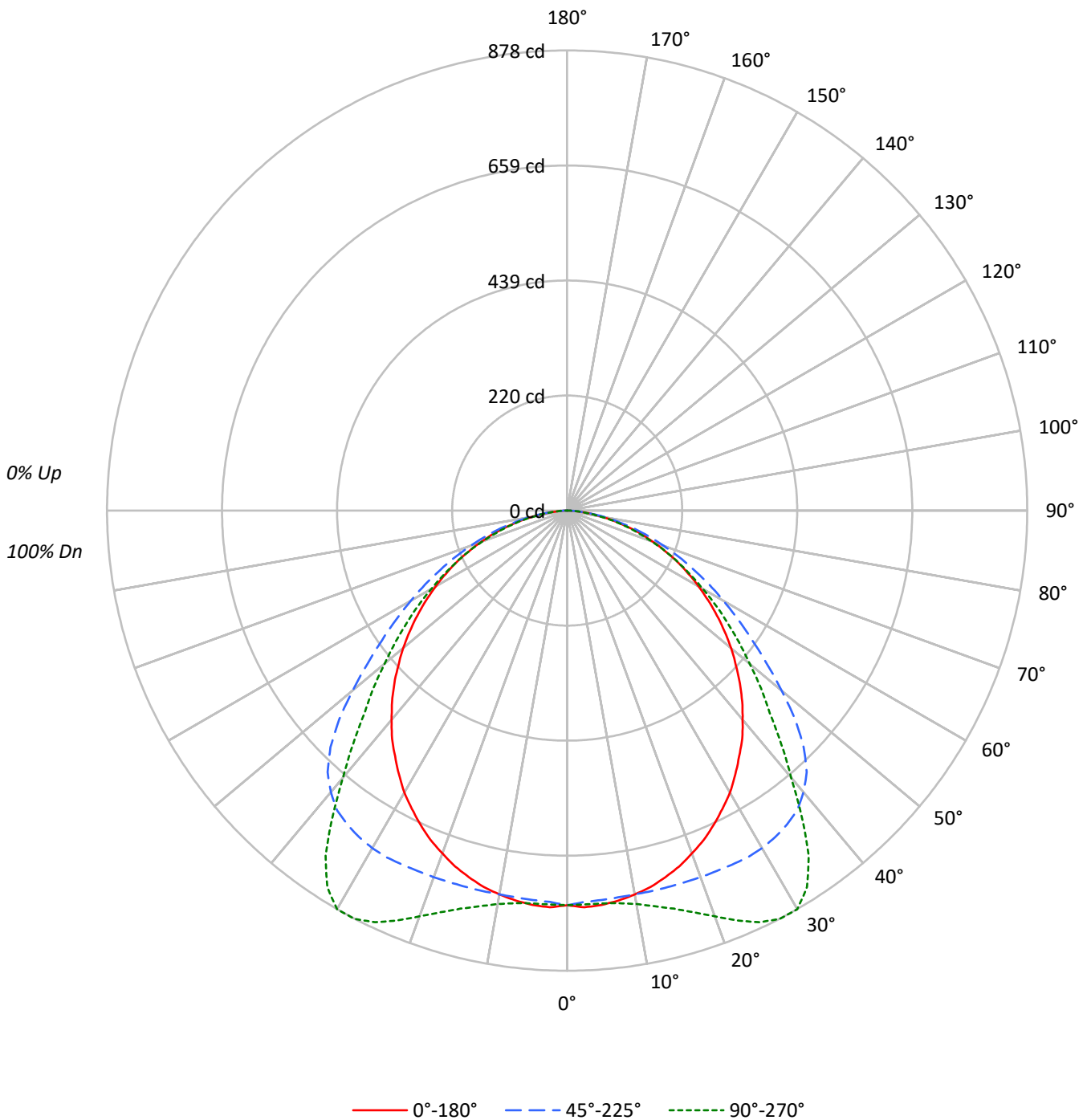
Lumens per Lamp: N/A
Luminaire Lumens: 2277.3 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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°	9077	9077	9077
5°	9141	9027	9103
10°	9103	9103	9332
15°	9038	9281	9816
20°	8931	9551	10569
25°	8804	9913	11528
30°	8651	10352	12227
35°	8423	10760	11828
40°	8198	11042	10466
45°	7952	10887	9320
50°	7668	10018	8529
55°	7332	9068	7840
60°	6985	8300	7210
65°	6641	7597	6664
70°	6148	6888	6038
75°	5548	6130	5404
80°	4652	5138	4430
85°	3555	3776	3334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10887 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	3.1
10°-20°	213.0	9.4
20°-30°	349.2	15.3
30°-40°	441.7	19.4
40°-50°	431.5	18.9
50°-60°	354.5	15.6
60°-70°	250.0	11.0
70°-80°	133.3	5.9
80°-90°	32.5	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°	633.9	27.8
0°-40°	1075.5	47.2
0°-60°	1861.6	81.7
0°-90°	2277.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2277.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	755	752	746	754	752	72
15°	724	728	744	777	786	204
25°	662	681	745	836	867	305
35°	572	612	731	816	804	358
45°	466	519	638	576	547	359
55°	349	401	431	388	373	312
65°	233	266	266	243	234	230
75°	119	134	132	119	116	126
85°	26	28	27	25	24	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	752.9	752.9	752.9	752.9	752.9
2.5°	757.6	755.3	747.5	754.5	752.2
5°	755.3	752.2	745.9	753.7	752.2
7.5°	750.6	749.1	744.4	756.1	755.3
10°	743.6	742.8	743.6	760.7	762.3
12.5°	735.8	736.6	743.6	767.7	773.2
15°	724.1	728.0	743.6	777.1	786.4
17.5°	711.7	717.9	743.6	789.5	803.6
20°	696.1	707.0	744.4	802.8	823.8
22.5°	680.5	693.8	744.4	820.7	846.4
25°	661.8	681.3	745.2	835.5	866.6
27.5°	641.6	665.0	745.9	847.2	878.3
30°	621.4	649.4	743.6	851.8	878.3
32.5°	597.2	631.5	738.9	844.0	851.8
35°	572.3	612.0	731.1	816.0	803.6
37.5°	548.9	591.0	721.0	764.6	735.0
40°	520.9	568.4	701.6	699.2	665.0
42.5°	494.4	544.3	676.6	633.0	605.0
45°	466.4	519.4	638.5	576.2	546.6
47.5°	436.8	492.1	590.2	522.5	501.4
50°	408.8	464.1	534.1	473.4	454.7
52.5°	378.4	434.5	480.4	429.8	413.5
55°	348.8	401.0	431.4	387.8	373.0
57.5°	319.2	368.3	386.2	348.1	336.4
60°	289.7	334.0	344.2	311.5	299.0
62.5°	260.8	302.1	305.2	276.4	265.5
65°	232.8	266.3	266.3	242.9	233.6
67.5°	203.2	232.0	230.5	208.7	203.2
70°	174.4	198.6	195.4	177.5	171.3
72.5°	147.2	165.1	162.7	148.7	141.7
75°	119.1	133.9	131.6	119.1	116.0
77.5°	92.7	102.8	100.4	91.9	89.5
80°	67.0	74.7	74.0	67.7	63.8
82.5°	45.2	49.1	48.3	44.4	42.0
85°	25.7	28.0	27.3	24.9	24.1
87.5°	10.1	11.7	12.5	11.7	10.9
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	19.30	20.91	19.67	21.22	21.53	19.03	20.63	19.39	20.95	21.26
	3H	20.87	22.32	21.25	22.64	23.01	20.54	21.99	20.92	22.32	22.68
	4H	21.42	22.78	21.82	23.13	23.51	21.08	22.44	21.48	22.79	23.16
	6H	21.79	23.05	22.20	23.41	23.80	21.44	22.70	21.85	23.06	23.45
	8H	21.89	23.09	22.31	23.48	23.88	21.53	22.73	21.96	23.12	23.52
	12H	21.94	23.09	22.37	23.47	23.90	21.58	22.73	22.01	23.11	23.54
4H	2H	19.94	21.30	20.34	21.65	22.02	19.73	21.09	20.13	21.44	21.81
	3H	21.75	22.88	22.16	23.28	23.68	21.44	22.58	21.85	22.98	23.38
	4H	22.44	23.46	22.87	23.87	24.31	22.08	23.10	22.51	23.52	23.95
	6H	22.92	23.81	23.37	24.25	24.71	22.54	23.43	22.99	23.87	24.33
	8H	23.05	23.89	23.51	24.33	24.79	22.67	23.50	23.13	23.94	24.41
	12H	23.14	23.88	23.62	24.36	24.83	22.75	23.49	23.23	23.97	24.44
8H	4H	22.70	23.54	23.16	23.98	24.44	22.39	23.22	22.85	23.67	24.13
	6H	23.29	23.98	23.79	24.47	24.95	22.95	23.64	23.44	24.13	24.60
	8H	23.49	24.11	24.00	24.61	25.10	23.13	23.75	23.64	24.26	24.74
	12H	23.63	24.18	24.13	24.67	25.23	23.26	23.81	23.76	24.30	24.86
12H	4H	22.72	23.47	23.20	23.94	24.41	22.41	23.16	22.89	23.64	24.11
	6H	23.32	23.95	23.83	24.45	24.94	22.99	23.61	23.50	24.12	24.61
	8H	23.57	24.12	24.07	24.61	25.17	23.22	23.77	23.73	24.26	24.82