

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: P1439836

Luminaire Tested: S123DR-S675D927-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439836
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-S675D927-X4F0-XX-UDD-FLB-W
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

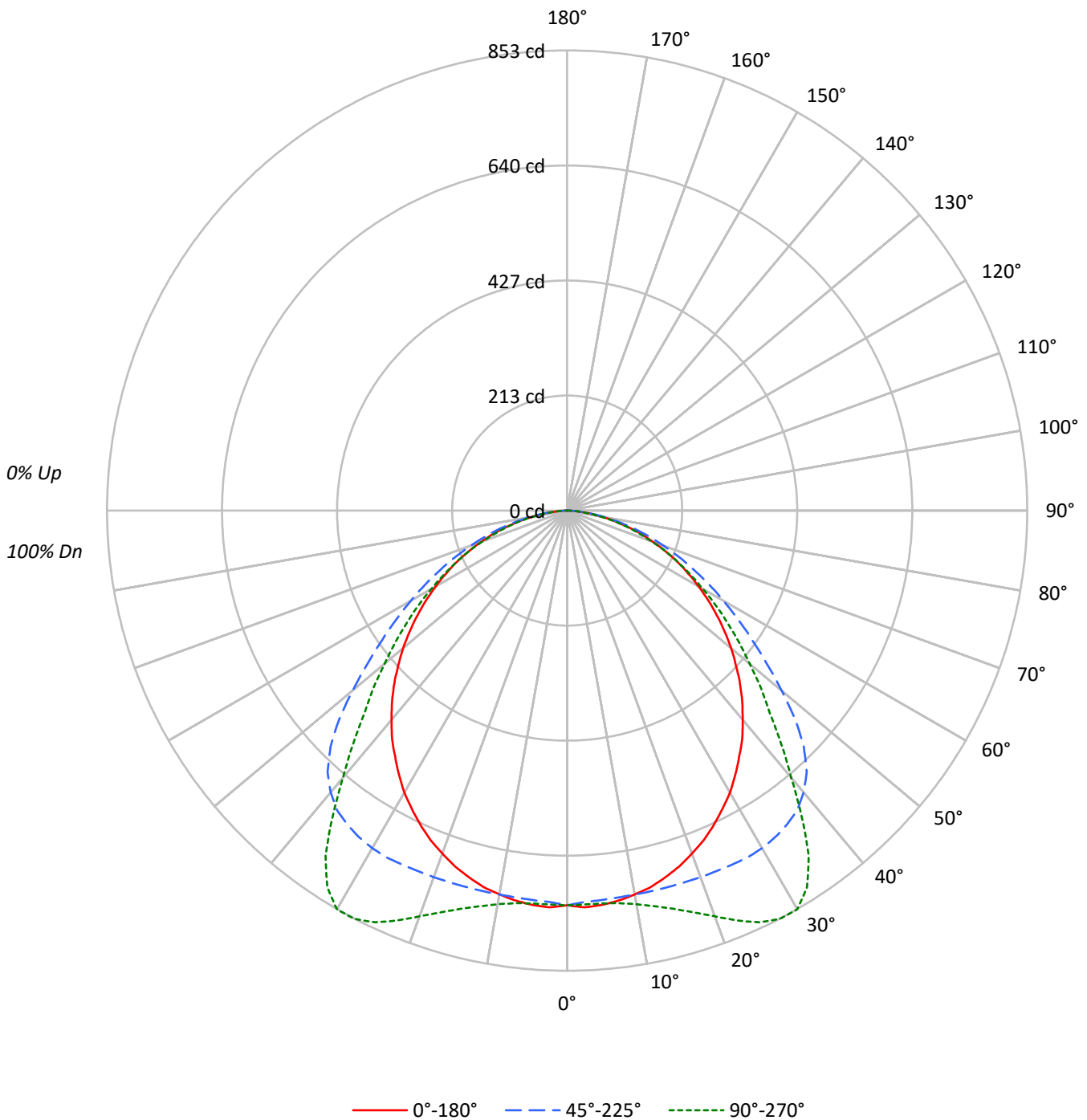
Lumens per Lamp: N/A
Luminaire Lumens: 2212.8 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1439836

CATALOG NUMBER: S123DR-S675D927-X4F0-XX-UDD-FLB-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8820	8820	8820
5°	8882	8772	8844
10°	8845	8845	9068
15°	8782	9018	9537
20°	8678	9280	10269
25°	8555	9631	11202
30°	8404	10058	11881
35°	8185	10456	11492
40°	7965	10729	10169
45°	7727	10578	9055
50°	7450	9735	8287
55°	7124	8809	7618
60°	6785	8063	7005
65°	6453	7380	6476
70°	5975	6694	5866
75°	5394	5958	5250
80°	4520	4992	4305
85°	3458	3666	3251

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10578 cd/sqm



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CATALOG NUMBER: S123DR-S675D927-X4F0-XX-UDD-FLB-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	3.1
10°-20°	207.0	9.4
20°-30°	339.2	15.3
30°-40°	429.2	19.4
40°-50°	419.3	18.9
50°-60°	344.4	15.6
60°-70°	242.9	11.0
70°-80°	129.5	5.9
80°-90°	31.6	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°	615.9	27.8
0°-40°	1045.1	47.2
0°-60°	1808.8	81.7
0°-90°	2212.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2212.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	734	731	725	732	731	70
15°	704	707	722	755	764	198
25°	643	662	724	812	842	296
35°	556	595	710	793	781	348
45°	453	505	620	560	531	349
55°	339	390	419	377	362	303
65°	226	259	259	236	227	223
75°	116	130	128	116	113	123
85°	25	27	26	24	24	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	731.6	731.6	731.6	731.6	731.6
2.5°	736.1	733.9	726.3	733.1	730.8
5°	733.9	730.8	724.8	732.4	730.8
7.5°	729.3	727.8	723.3	734.6	733.9
10°	722.5	721.8	722.5	739.2	740.7
12.5°	715.0	715.7	722.5	746.0	751.3
15°	703.6	707.4	722.5	755.1	764.1
17.5°	691.5	697.6	722.5	767.2	780.8
20°	676.4	687.0	723.3	780.0	800.4
22.5°	661.2	674.1	723.3	797.4	822.4
25°	643.1	662.0	724.0	811.8	842.1
27.5°	623.4	646.1	724.8	823.1	853.4
30°	603.7	631.0	722.5	827.7	853.4
32.5°	580.3	613.6	718.0	820.1	827.7
35°	556.1	594.7	710.4	792.9	780.8
37.5°	533.4	574.2	700.6	742.9	714.2
40°	506.1	552.3	681.7	679.4	646.1
42.5°	480.4	528.8	657.5	615.1	587.9
45°	453.2	504.6	620.4	559.9	531.1
47.5°	424.4	478.1	573.5	507.7	487.2
50°	397.2	450.9	519.0	460.0	441.8
52.5°	367.7	422.2	466.8	417.6	401.7
55°	338.9	389.6	419.1	376.8	362.4
57.5°	310.2	357.9	375.3	338.2	326.8
60°	281.4	324.6	334.4	302.6	290.5
62.5°	253.4	293.5	296.6	268.6	258.0
65°	226.2	258.7	258.7	236.0	227.0
67.5°	197.5	225.5	223.9	202.8	197.5
70°	169.5	192.9	189.9	172.5	166.4
72.5°	143.0	160.4	158.1	144.5	137.7
75°	115.8	130.1	127.9	115.8	112.7
77.5°	90.0	99.9	97.6	89.3	87.0
80°	65.1	72.6	71.9	65.8	62.0
82.5°	43.9	47.7	46.9	43.1	40.9
85°	25.0	27.2	26.5	24.2	23.5
87.5°	9.8	11.3	12.1	11.3	10.6
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	19.20	20.81	19.57	21.12	21.44	18.93	20.53	19.29	20.85	21.16
	3H	20.77	22.22	21.15	22.55	22.91	20.44	21.89	20.82	22.22	22.58
	4H	21.32	22.68	21.72	23.03	23.41	20.98	22.34	21.38	22.69	23.06
	6H	21.69	22.95	22.10	23.31	23.70	21.34	22.60	21.75	22.96	23.35
	8H	21.79	22.99	22.21	23.38	23.78	21.43	22.63	21.86	23.02	23.42
	12H	21.84	22.99	22.27	23.37	23.80	21.48	22.63	21.91	23.02	23.44
4H	2H	19.84	21.20	20.24	21.55	21.93	19.63	20.99	20.03	21.34	21.71
	3H	21.65	22.78	22.06	23.18	23.58	21.34	22.48	21.75	22.88	23.28
	4H	22.34	23.36	22.77	23.77	24.21	21.98	23.00	22.41	23.42	23.86
	6H	22.82	23.71	23.27	24.15	24.61	22.44	23.33	22.90	23.77	24.23
	8H	22.95	23.79	23.41	24.23	24.69	22.57	23.40	23.03	23.84	24.31
	12H	23.04	23.79	23.52	24.26	24.73	22.65	23.40	23.13	23.87	24.34
8H	4H	22.60	23.44	23.06	23.88	24.34	22.29	23.12	22.75	23.57	24.03
	6H	23.19	23.88	23.69	24.37	24.85	22.85	23.54	23.34	24.03	24.51
	8H	23.39	24.01	23.90	24.52	25.00	23.03	23.65	23.54	24.16	24.64
	12H	23.53	24.08	24.03	24.57	25.13	23.16	23.71	23.66	24.20	24.76
12H	4H	22.62	23.37	23.10	23.84	24.31	22.31	23.06	22.80	23.54	24.01
	6H	23.22	23.85	23.73	24.35	24.84	22.89	23.52	23.40	24.02	24.51
	8H	23.47	24.02	23.98	24.51	25.07	23.12	23.67	23.63	24.16	24.72