

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: P1439973

Luminaire Tested: S124DR-S675D935-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1439973  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/2/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DR-S675D935-X4F0-XX-UDD-FLB-W  
Description: DEFINE 4, DIRECT RECESSED WITH BATWING FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

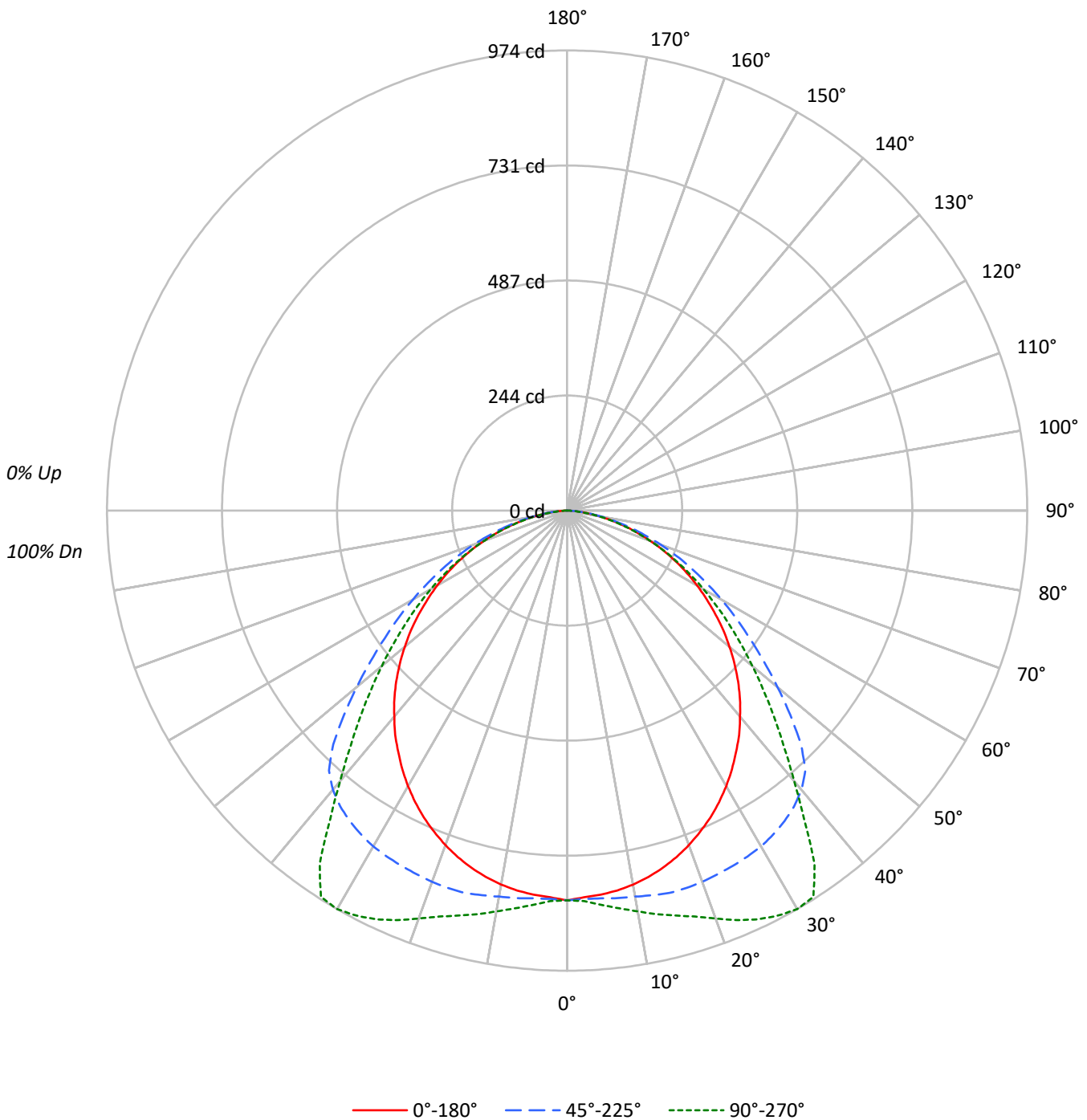
Lumens per Lamp: N/A  
Luminaire Lumens: 2506.8 lumens  
Efficiency: N/A  
Efficacy: 95.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.53 / 1.51  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct

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

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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	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	101	97	107	103	99	95	98	95	92	94	92	90	91	89	87					85				
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73					71				
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63					60				
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54					52				
5	77	64	55	49	75	63	55	49	61	54	48	59	53	47	57	52	47					45				
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41					39				
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37					35				
8	61	48	39	34	60	47	39	33	46	38	33	44	38	33	43	37	33					31				
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30					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°	7293	7293	7293
5°	7241	7313	7436
10°	7216	7449	7733
15°	7165	7669	8121
20°	7090	7868	8645
25°	6997	8094	9311
30°	6876	8380	9942
35°	6727	8658	9855
40°	6568	8903	8623
45°	6397	8755	7753
50°	6168	7994	7048
55°	5915	7274	6439
60°	5625	6670	5897
65°	5285	6079	5385
70°	4834	5442	4813
75°	4260	4673	4174
80°	3503	3752	3381
85°	2465	2546	2303

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 8755 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.2	3.2
10°-20°	237.2	9.5
20°-30°	386.1	15.4
30°-40°	490.3	19.6
40°-50°	477.7	19.1
50°-60°	391.7	15.6
60°-70°	273.3	10.9
70°-80°	140.3	5.6
80°-90°	31.1	1.2
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°	702.4	28.0
0°-40°	1192.7	47.6
0°-60°	2062.1	82.3
0°-90°	2506.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2506.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	816	828	824	830	838	78
15°	783	807	838	871	887	221
25°	717	763	830	916	954	330
35°	623	684	802	919	913	390
45°	512	575	700	642	620	394
55°	384	443	472	432	418	343
65°	253	289	291	267	257	250
75°	125	138	137	127	122	133
85°	24	25	25	24	23	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	824.9	824.9	824.9	824.9	824.9
2.5°	819.2	829.7	822.4	825.7	827.3
5°	815.9	828.1	824.0	829.7	837.8
7.5°	811.1	824.9	827.3	838.6	849.1
10°	803.8	820.0	829.7	849.1	861.3
12.5°	794.1	814.3	833.8	860.5	875.0
15°	782.8	807.0	837.8	871.0	887.2
17.5°	769.0	798.1	837.8	879.1	900.9
20°	753.6	787.6	836.2	889.6	918.8
22.5°	735.8	776.3	832.9	901.8	938.2
25°	717.2	763.3	829.7	915.5	954.4
27.5°	696.1	748.0	825.7	926.0	966.5
30°	673.5	729.3	820.8	930.9	973.8
32.5°	649.2	707.5	812.7	930.9	969.7
35°	623.3	684.0	802.2	918.8	913.1
37.5°	598.2	658.9	789.2	859.7	824.0
40°	569.1	632.2	771.4	776.3	747.1
42.5°	541.5	603.9	746.3	705.9	680.0
45°	511.6	574.7	700.2	641.9	620.1
47.5°	480.8	543.2	640.3	584.4	564.2
50°	448.4	511.6	581.2	530.2	512.4
52.5°	416.9	477.6	524.5	480.0	463.0
55°	383.7	442.8	471.9	432.3	417.7
57.5°	350.5	407.2	424.2	387.7	374.0
60°	318.1	369.1	377.2	345.6	333.5
62.5°	285.7	329.5	332.7	305.2	294.6
65°	252.6	289.0	290.6	267.1	257.4
67.5°	220.2	250.1	250.1	229.9	221.8
70°	187.0	212.1	210.5	194.3	186.2
72.5°	155.4	173.2	171.6	159.5	153.8
75°	124.7	138.4	136.8	127.1	122.2
77.5°	95.5	105.2	103.6	97.1	93.1
80°	68.8	74.5	73.7	68.8	66.4
82.5°	45.3	48.6	46.9	43.7	42.1
85°	24.3	25.1	25.1	23.5	22.7
87.5°	8.9	8.9	8.9	8.9	8.1
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	18.59	20.19	18.95	20.50	20.82	18.37	19.97	18.74	20.28	20.60
	3H	20.09	21.53	20.47	21.86	22.22	19.84	21.28	20.22	21.61	21.97
	4H	20.59	21.95	20.99	22.29	22.67	20.34	21.69	20.74	22.04	22.42
	6H	20.91	22.17	21.33	22.53	22.92	20.66	21.91	21.07	22.27	22.66
	8H	21.00	22.19	21.42	22.58	22.98	20.73	21.93	21.16	22.31	22.71
	12H	21.04	22.18	21.47	22.56	22.99	20.77	21.91	21.20	22.29	22.72
4H	2H	19.21	20.56	19.61	20.91	21.29	19.04	20.39	19.44	20.74	21.12
	3H	20.94	22.07	21.35	22.46	22.87	20.71	21.83	21.12	22.23	22.63
	4H	21.57	22.58	22.00	23.00	23.43	21.30	22.32	21.74	22.73	23.17
	6H	21.99	22.88	22.45	23.32	23.78	21.72	22.60	22.17	23.04	23.50
	8H	22.11	22.94	22.57	23.38	23.84	21.82	22.65	22.28	23.09	23.56
	12H	22.17	22.91	22.65	23.39	23.86	21.88	22.62	22.36	23.10	23.57
8H	4H	21.81	22.64	22.27	23.08	23.55	21.58	22.40	22.04	22.85	23.31
	6H	22.33	23.02	22.83	23.51	23.98	22.08	22.76	22.57	23.25	23.73
	8H	22.50	23.11	23.01	23.62	24.11	22.23	22.84	22.74	23.35	23.83
	12H	22.61	23.15	23.11	23.64	24.20	22.32	22.87	22.83	23.36	23.92
12H	4H	21.82	22.56	22.30	23.04	23.51	21.59	22.34	22.08	22.81	23.28
	6H	22.35	22.97	22.86	23.48	23.96	22.11	22.72	22.62	23.23	23.72
	8H	22.56	23.11	23.07	23.60	24.16	22.30	22.84	22.81	23.33	23.90