

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: P1217388

Luminaire Tested: S124DRP-H865D935-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217388
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-H865D935-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

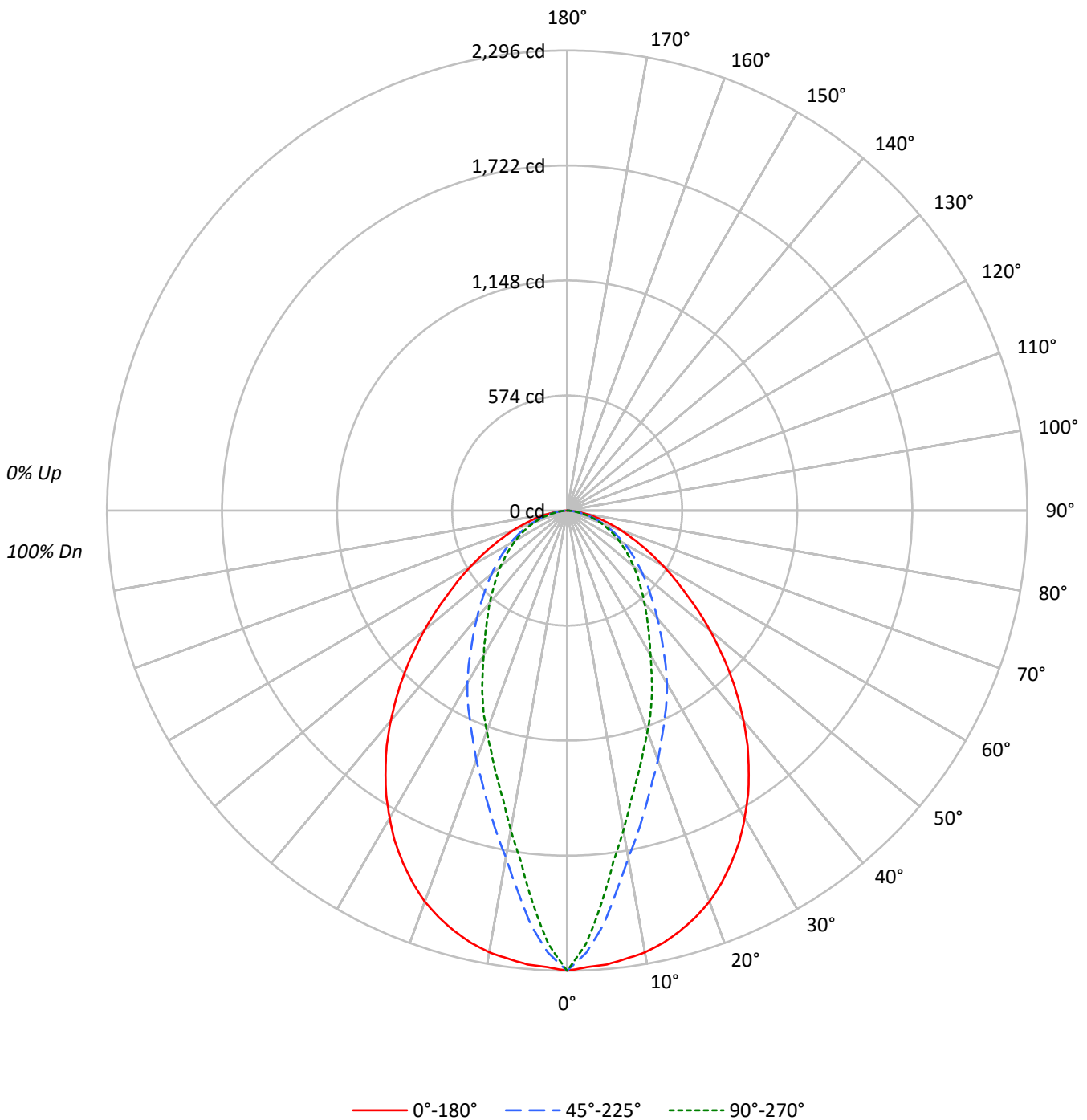
Lumens per Lamp: N/A
Luminaire Lumens: 3219.7 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	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°	20298	20298	20298
5°	20178	18411	17450
10°	20093	15783	14521
15°	19885	13926	12491
20°	19536	12460	11033
25°	18915	11213	9773
30°	18081	10165	8484
35°	17053	9012	7594
40°	15798	8073	6919
45°	14359	7343	6383
50°	12792	6758	5965
55°	11157	6280	5578
60°	9796	5846	5255
65°	8481	5393	4906
70°	7344	4886	4521
75°	6111	4318	3973
80°	4735	3498	3243
85°	2972	2364	2151

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.2	6.0
10°-20°	456.5	14.2
20°-30°	583.4	18.1
30°-40°	592.5	18.4
40°-50°	525.2	16.3
50°-60°	412.7	12.8
60°-70°	281.0	8.7
70°-80°	144.3	4.5
80°-90°	32.0	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°	1232.0	38.3
0°-40°	1824.5	56.7
0°-60°	2762.5	85.8
0°-90°	3219.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3219.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2296	2296	2296	2296	2296	
5°	2274	2216	2074	1994	1966	216
15°	2172	1814	1521	1396	1365	612
25°	1939	1421	1149	1039	1002	891
35°	1580	1077	835	729	704	986
45°	1148	775	587	527	510	885
55°	724	517	407	371	362	654
65°	405	313	258	240	234	406
75°	179	148	126	120	116	192
85°	29	27	23	23	21	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2295.8	2295.8	2295.8	2295.8	2295.8
2.5°	2279.6	2282.6	2206.8	2179.5	2163.3
5°	2273.5	2215.9	2074.4	1994.5	1966.2
7.5°	2255.3	2130.0	1906.6	1796.4	1767.1
10°	2238.1	2031.9	1758.0	1648.8	1617.4
12.5°	2209.8	1923.7	1638.7	1513.3	1475.9
15°	2172.4	1813.6	1521.4	1396.1	1364.7
17.5°	2128.0	1708.4	1415.3	1295.0	1260.6
20°	2076.4	1611.4	1324.3	1201.0	1172.6
22.5°	2011.7	1515.3	1231.3	1120.1	1088.7
25°	1938.9	1421.3	1149.4	1039.2	1001.8
27.5°	1861.1	1330.3	1073.6	951.3	911.8
30°	1771.1	1243.4	995.7	867.4	831.0
32.5°	1680.1	1157.5	913.9	792.5	763.2
35°	1580.0	1076.6	835.0	728.9	703.6
37.5°	1479.0	998.8	764.2	671.2	649.0
40°	1368.8	923.0	699.5	617.7	599.5
42.5°	1258.6	847.1	640.9	570.1	553.0
45°	1148.4	775.4	587.3	526.7	510.5
47.5°	1037.2	704.6	537.8	484.2	471.1
50°	930.0	637.9	491.3	444.8	433.7
52.5°	825.9	575.2	446.8	407.4	395.3
55°	723.8	516.6	407.4	371.0	361.9
57.5°	636.9	462.0	368.0	336.6	329.6
60°	554.0	409.4	330.6	304.3	297.2
62.5°	476.1	360.9	293.2	271.9	266.9
65°	405.4	313.4	257.8	239.6	234.5
67.5°	340.7	269.9	221.4	208.2	204.2
70°	284.1	226.4	189.0	177.9	174.9
72.5°	227.5	185.0	156.7	148.6	145.6
75°	178.9	147.6	126.4	120.3	116.3
77.5°	134.5	112.2	97.0	92.0	89.0
80°	93.0	79.9	68.7	66.7	63.7
82.5°	58.6	50.5	44.5	43.5	40.4
85°	29.3	27.3	23.3	23.3	21.2
87.5°	10.1	9.1	9.1	9.1	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	19.36	20.85	19.73	21.16	21.48	16.69	18.18	17.05	18.49	18.80
	3H	20.96	22.29	21.33	22.62	22.98	18.29	19.62	18.67	19.95	20.31
	4H	21.49	22.74	21.89	23.09	23.46	18.85	20.10	19.25	20.44	20.82
	6H	21.82	22.97	22.23	23.34	23.73	19.20	20.36	19.61	20.72	21.11
	8H	21.90	22.99	22.32	23.38	23.79	19.29	20.39	19.72	20.78	21.18
	12H	21.92	22.98	22.36	23.36	23.79	19.32	20.37	19.75	20.76	21.19
4H	2H	19.59	20.84	19.99	21.19	21.57	17.36	18.61	17.77	18.96	19.34
	3H	21.38	22.41	21.79	22.81	23.22	19.15	20.19	19.56	20.59	20.99
	4H	22.02	22.95	22.45	23.37	23.80	19.82	20.75	20.25	21.16	21.60
	6H	22.46	23.27	22.92	23.72	24.18	20.27	21.08	20.73	21.53	21.99
	8H	22.57	23.33	23.04	23.78	24.24	20.39	21.15	20.85	21.59	22.06
	12H	22.63	23.31	23.11	23.79	24.26	20.45	21.12	20.93	21.60	22.07
8H	4H	22.12	22.88	22.58	23.32	23.79	20.12	20.87	20.58	21.32	21.78
	6H	22.64	23.26	23.14	23.75	24.23	20.67	21.29	21.16	21.78	22.26
	8H	22.79	23.35	23.31	23.86	24.35	20.83	21.39	21.35	21.90	22.39
	12H	22.89	23.39	23.41	23.88	24.45	20.94	21.43	21.45	21.92	22.49
12H	4H	22.11	22.79	22.59	23.27	23.74	20.14	20.81	20.62	21.29	21.76
	6H	22.63	23.19	23.15	23.70	24.19	20.70	21.26	21.22	21.77	22.26
	8H	22.82	23.32	23.34	23.81	24.38	20.92	21.41	21.43	21.90	22.47