

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: P1217387

Luminaire Tested: S124DRP-H865D930-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217387
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-H865D930-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

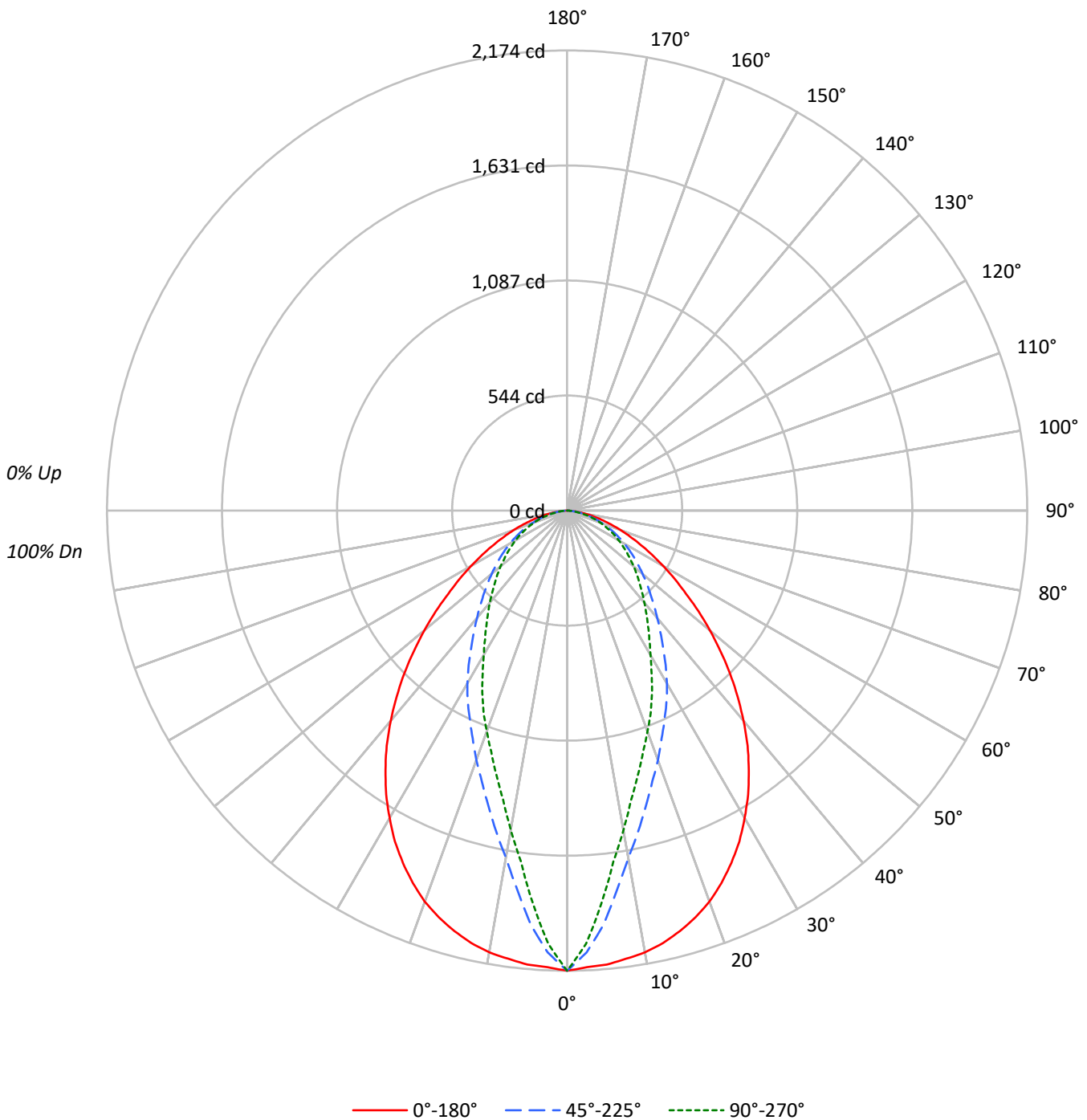
Lumens per Lamp: N/A
Luminaire Lumens: 3048.9 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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			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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87	87	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57	57	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51	51	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45	45	45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41	41	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37	37	37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34	34	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19220	19220	19220
5°	19106	17433	16524
10°	19027	14945	13750
15°	18829	13187	11829
20°	18500	11799	10448
25°	17911	10618	9254
30°	17122	9626	8034
35°	16149	8534	7191
40°	14959	7645	6551
45°	13596	6954	6044
50°	12114	6399	5649
55°	10565	5947	5283
60°	9276	5535	4976
65°	8031	5107	4646
70°	6954	4627	4281
75°	5787	4089	3761
80°	4486	3315	3070
85°	2820	2232	2039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13596 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.0	6.0
10°-20°	432.3	14.2
20°-30°	552.4	18.1
30°-40°	561.0	18.4
40°-50°	497.3	16.3
50°-60°	390.8	12.8
60°-70°	266.1	8.7
70°-80°	136.6	4.5
80°-90°	30.3	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°	1166.6	38.3
0°-40°	1727.7	56.7
0°-60°	2615.8	85.8
0°-90°	3048.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3048.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2174	2174	2174	2174	2174	
5°	2153	2098	1964	1889	1862	204
15°	2057	1717	1441	1322	1292	579
25°	1836	1346	1088	984	949	844
35°	1496	1020	791	690	666	934
45°	1087	734	556	499	483	838
55°	685	489	386	351	343	619
65°	384	297	244	227	222	384
75°	169	140	120	114	110	182
85°	28	26	22	22	20	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2173.9	2173.9	2173.9	2173.9	2173.9
2.5°	2158.6	2161.5	2089.7	2063.8	2048.5
5°	2152.8	2098.3	1964.3	1888.6	1861.8
7.5°	2135.6	2016.9	1805.4	1701.0	1673.3
10°	2119.3	1924.1	1664.7	1561.3	1531.6
12.5°	2092.5	1821.6	1551.7	1433.0	1397.6
15°	2057.1	1717.3	1440.7	1322.0	1292.3
17.5°	2015.0	1617.7	1340.1	1226.2	1193.7
20°	1966.2	1525.9	1254.0	1137.2	1110.4
22.5°	1904.9	1434.9	1165.9	1060.6	1031.0
25°	1836.0	1345.9	1088.4	984.0	948.6
27.5°	1762.3	1259.7	1016.6	900.8	863.4
30°	1677.1	1177.4	942.9	821.3	786.9
32.5°	1590.9	1096.0	865.4	750.5	722.7
35°	1496.2	1019.5	790.7	690.2	666.2
37.5°	1400.5	945.8	723.7	635.6	614.6
40°	1296.1	874.0	662.4	584.9	567.6
42.5°	1191.8	802.2	606.9	539.9	523.6
45°	1087.4	734.2	556.2	498.7	483.4
47.5°	982.1	667.2	509.3	458.5	446.1
50°	880.7	604.0	465.2	421.2	410.7
52.5°	782.1	544.7	423.1	385.8	374.3
55°	685.4	489.2	385.8	351.3	342.7
57.5°	603.1	437.5	348.4	318.8	312.1
60°	524.6	387.7	313.0	288.1	281.4
62.5°	450.9	341.7	277.6	257.5	252.7
65°	383.9	296.7	244.1	226.9	222.1
67.5°	322.6	255.6	209.6	197.2	193.4
70°	269.0	214.4	179.0	168.5	165.6
72.5°	215.4	175.2	148.4	140.7	137.8
75°	169.4	139.8	119.7	113.9	110.1
77.5°	127.3	106.3	91.9	87.1	84.2
80°	88.1	75.6	65.1	63.2	60.3
82.5°	55.5	47.9	42.1	41.2	38.3
85°	27.8	25.8	22.0	22.0	20.1
87.5°	9.6	8.6	8.6	8.6	7.7
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	19.18	20.66	19.54	20.98	21.29	16.50	17.99	16.87	18.30	18.62
	3H	20.77	22.10	21.15	22.43	22.79	18.10	19.43	18.48	19.76	20.12
	4H	21.30	22.55	21.70	22.90	23.28	18.66	19.91	19.06	20.26	20.63
	6H	21.63	22.78	22.04	23.15	23.54	19.01	20.17	19.42	20.53	20.93
	8H	21.71	22.80	22.13	23.19	23.60	19.10	20.20	19.53	20.59	20.99
	12H	21.74	22.79	22.17	23.17	23.60	19.14	20.19	19.57	20.57	21.00
4H	2H	19.40	20.65	19.80	21.00	21.38	17.18	18.43	17.58	18.77	19.15
	3H	21.19	22.22	21.60	22.62	23.03	18.96	20.00	19.37	20.40	20.80
	4H	21.83	22.76	22.26	23.18	23.62	19.63	20.56	20.06	20.98	21.41
	6H	22.27	23.08	22.73	23.53	23.99	20.08	20.89	20.54	21.34	21.80
	8H	22.39	23.14	22.85	23.59	24.05	20.20	20.96	20.66	21.40	21.87
	12H	22.44	23.12	22.93	23.60	24.07	20.26	20.93	20.74	21.41	21.89
8H	4H	21.93	22.69	22.40	23.13	23.60	19.93	20.68	20.39	21.13	21.60
	6H	22.45	23.07	22.95	23.56	24.04	20.48	21.10	20.97	21.59	22.07
	8H	22.60	23.16	23.12	23.67	24.16	20.64	21.20	21.16	21.71	22.20
	12H	22.71	23.20	23.22	23.69	24.26	20.75	21.24	21.26	21.74	22.30
12H	4H	21.92	22.60	22.41	23.08	23.55	19.95	20.62	20.43	21.10	21.58
	6H	22.44	23.00	22.96	23.51	24.00	20.51	21.07	21.03	21.58	22.07
	8H	22.64	23.13	23.15	23.62	24.19	20.73	21.22	21.24	21.71	22.28