

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: P1217374

Luminaire Tested: S124DRP-H675D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217374
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-H675D835-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

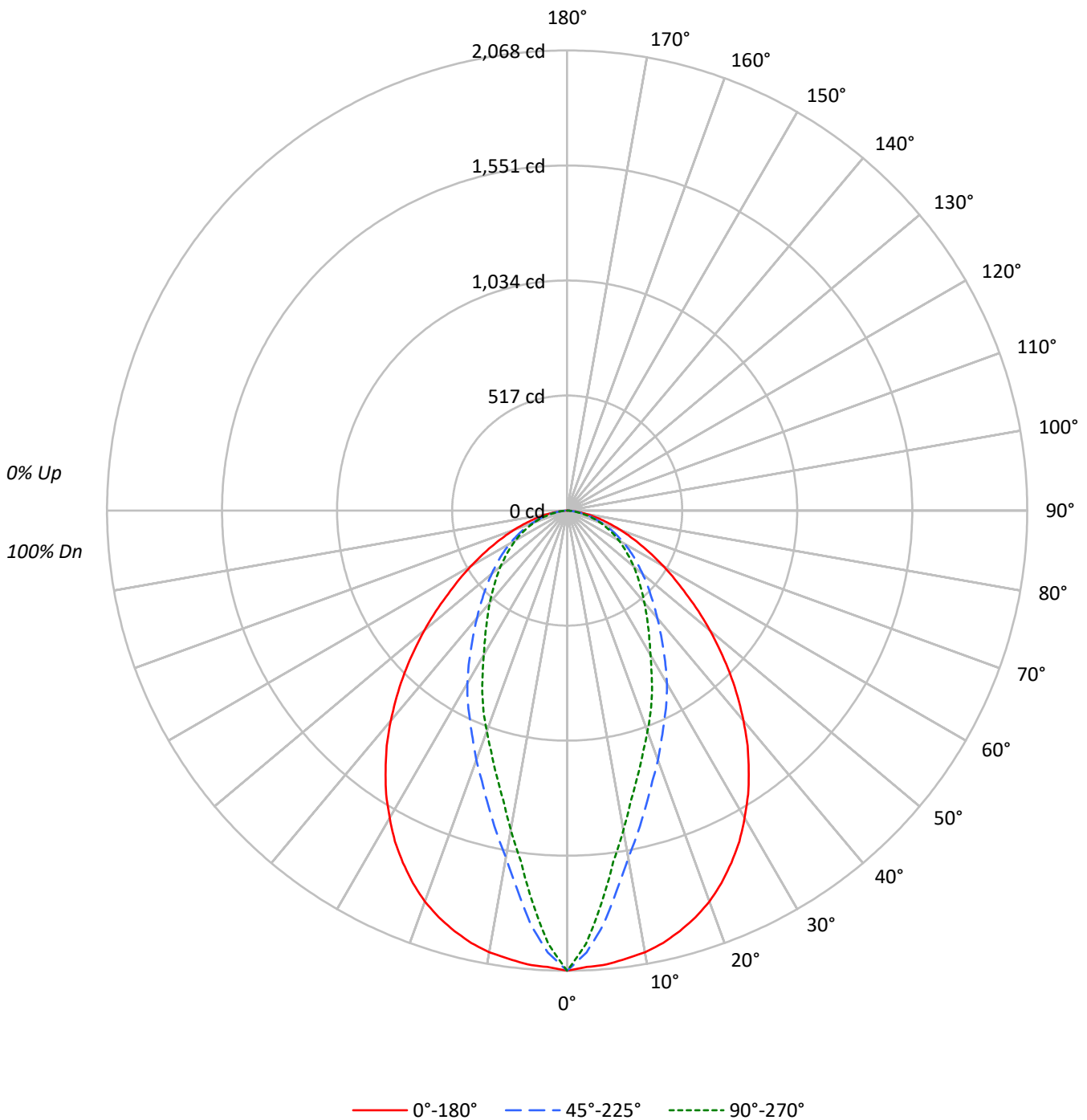
Lumens per Lamp: N/A
Luminaire Lumens: 2899.7 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	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°	18280	18280	18280
5°	18172	16581	15716
10°	18096	14214	13078
15°	17908	12542	11250
20°	17594	11221	9937
25°	17035	10098	8801
30°	16285	9156	7641
35°	15359	8117	6840
40°	14227	7271	6231
45°	12931	6614	5749
50°	11521	6086	5373
55°	10049	5656	5024
60°	8822	5264	4734
65°	7638	4858	4418
70°	6613	4400	4071
75°	5503	3887	3577
80°	4267	3152	2923
85°	2678	2120	1938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12931 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.1	6.0
10°-20°	411.1	14.2
20°-30°	525.4	18.1
30°-40°	533.6	18.4
40°-50°	473.0	16.3
50°-60°	371.7	12.8
60°-70°	253.1	8.7
70°-80°	129.9	4.5
80°-90°	28.8	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°	1109.6	38.3
0°-40°	1643.2	56.7
0°-60°	2487.9	85.8
0°-90°	2899.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2899.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2068	2068	2068	2068	2068	
5°	2048	1996	1868	1796	1771	194
15°	1956	1633	1370	1257	1229	551
25°	1746	1280	1035	936	902	802
35°	1423	970	752	656	634	888
45°	1034	698	529	474	460	797
55°	652	465	367	334	326	589
65°	365	282	232	216	211	365
75°	161	133	114	108	105	173
85°	26	25	21	21	19	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2067.6	2067.6	2067.6	2067.6	2067.6
2.5°	2053.0	2055.7	1987.4	1962.9	1948.3
5°	2047.5	1995.6	1868.2	1796.3	1770.8
7.5°	2031.1	1918.2	1717.0	1617.8	1591.4
10°	2015.7	1829.9	1583.2	1484.9	1456.7
12.5°	1990.2	1732.5	1475.8	1362.9	1329.2
15°	1956.5	1633.3	1370.2	1257.3	1229.1
17.5°	1916.4	1538.6	1274.6	1166.2	1135.3
20°	1870.0	1451.2	1192.6	1081.6	1056.1
22.5°	1811.7	1364.7	1108.9	1008.7	980.5
25°	1746.2	1280.0	1035.1	935.9	902.2
27.5°	1676.1	1198.1	966.9	856.7	821.2
30°	1595.1	1119.8	896.8	781.1	748.4
32.5°	1513.1	1042.4	823.0	713.8	687.4
35°	1423.0	969.6	752.0	656.4	633.7
37.5°	1331.9	899.5	688.3	604.5	584.5
40°	1232.7	831.2	630.0	556.3	539.9
42.5°	1133.5	762.9	577.2	513.5	498.0
45°	1034.2	698.3	529.0	474.3	459.8
47.5°	934.1	634.6	484.3	436.1	424.3
50°	837.6	574.5	442.5	400.6	390.6
52.5°	743.8	518.0	402.4	366.9	356.0
55°	651.9	465.2	366.9	334.1	325.9
57.5°	573.6	416.1	331.4	303.2	296.8
60°	498.9	368.7	297.7	274.0	267.7
62.5°	428.8	325.0	264.0	244.9	240.4
65°	365.1	282.2	232.2	215.8	211.2
67.5°	306.8	243.1	199.4	187.5	183.9
70°	255.8	203.9	170.2	160.2	157.5
72.5°	204.8	166.6	141.1	133.8	131.1
75°	161.1	132.9	113.8	108.3	104.7
77.5°	121.1	101.1	87.4	82.8	80.1
80°	83.8	71.9	61.9	60.1	57.4
82.5°	52.8	45.5	40.1	39.1	36.4
85°	26.4	24.6	20.9	20.9	19.1
87.5°	9.1	8.2	8.2	8.2	7.3
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	19.00	20.49	19.37	20.80	21.12	16.33	17.81	16.69	18.13	18.44
	3H	20.59	21.93	20.97	22.25	22.62	17.92	19.26	18.30	19.59	19.95
	4H	21.12	22.37	21.52	22.72	23.10	18.48	19.73	18.88	20.08	20.46
	6H	21.45	22.61	21.87	22.98	23.37	18.84	19.99	19.25	20.36	20.75
	8H	21.53	22.63	21.96	23.02	23.42	18.92	20.02	19.35	20.41	20.81
	12H	21.56	22.61	21.99	22.99	23.42	18.96	20.01	19.39	20.39	20.82
4H	2H	19.23	20.48	19.63	20.83	21.21	17.00	18.25	17.40	18.60	18.98
	3H	21.01	22.05	21.42	22.45	22.85	18.79	19.83	19.20	20.23	20.63
	4H	21.65	22.59	22.09	23.00	23.44	19.45	20.38	19.88	20.80	21.24
	6H	22.10	22.91	22.56	23.35	23.81	19.91	20.72	20.37	21.16	21.62
	8H	22.21	22.97	22.68	23.41	23.88	20.02	20.78	20.49	21.23	21.69
	12H	22.27	22.94	22.75	23.42	23.89	20.09	20.76	20.57	21.24	21.71
8H	4H	21.76	22.51	22.22	22.96	23.43	19.75	20.51	20.22	20.95	21.42
	6H	22.27	22.90	22.77	23.39	23.87	20.30	20.92	20.80	21.42	21.89
	8H	22.43	22.99	22.95	23.50	23.99	20.47	21.03	20.98	21.54	22.03
	12H	22.53	23.02	23.04	23.52	24.08	20.58	21.07	21.09	21.56	22.13
12H	4H	21.75	22.42	22.23	22.90	23.37	19.78	20.45	20.26	20.93	21.40
	6H	22.27	22.83	22.78	23.34	23.83	20.34	20.90	20.85	21.41	21.90
	8H	22.46	22.95	22.97	23.45	24.01	20.55	21.04	21.06	21.54	22.10