

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: P1217259

Luminaire Tested: S122DRP-H1005D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217259
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H1005D850-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

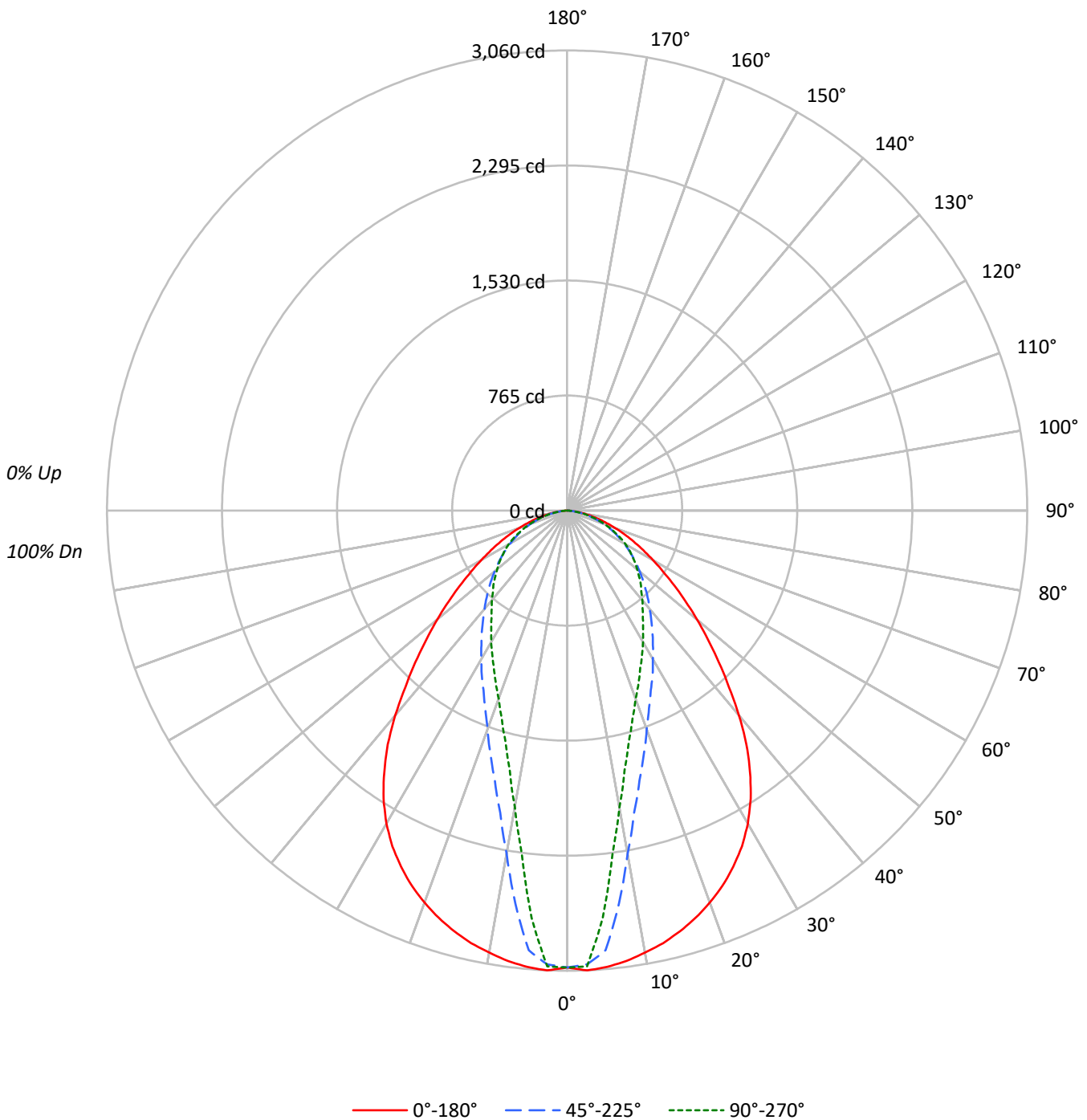
Lumens per Lamp: N/A
Luminaire Lumens: 4082.7 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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	93	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77					75				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67					65				
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59					57				
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52					50				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43					41				
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39					37				
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36					34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	57561	57561	57561
5°	57931	55822	51692
10°	57412	44577	38540
15°	56824	36433	31116
20°	55919	31186	26841
25°	54632	27531	24086
30°	52561	24964	22087
35°	49044	22874	20307
40°	43979	21126	19246
45°	38261	19747	18557
50°	33212	18545	17891
55°	28740	17536	17434
60°	24921	16513	16994
65°	21814	15489	16058
70°	18790	14220	14751
75°	15665	12532	12993
80°	12274	10201	9852
85°	7587	6543	6543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 38261 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.6	6.4
10°-20°	576.8	14.1
20°-30°	707.7	17.3
30°-40°	731.3	17.9
40°-50°	660.5	16.2
50°-60°	535.3	13.1
60°-70°	375.2	9.2
70°-80°	193.5	4.7
80°-90°	40.8	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°	1546.0	37.9
0°-40°	2277.4	55.8
0°-60°	3473.1	85.1
0°-90°	4082.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4082.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3038	3038	3038	3038	3038	
5°	3046	3040	2935	2804	2718	289
15°	2897	2442	1858	1656	1586	816
25°	2613	1735	1317	1192	1152	1201
35°	2120	1282	989	905	878	1318
45°	1428	924	737	696	693	1105
55°	870	632	531	525	528	784
65°	487	390	346	353	358	486
75°	214	184	171	176	178	231
85°	35	30	30	30	30	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3038.2	3038.2	3038.2	3038.2	3038.2
2.5°	3060.4	3049.3	3020.7	3047.7	3033.4
5°	3046.1	3039.8	2935.2	2803.6	2718.0
7.5°	3020.7	2998.6	2637.2	2388.4	2304.4
10°	2984.3	2873.3	2317.1	2085.7	2003.3
12.5°	2946.3	2684.8	2058.7	1841.6	1767.1
15°	2897.1	2442.3	1857.5	1656.2	1586.4
17.5°	2840.1	2231.5	1697.4	1504.0	1448.6
20°	2773.5	2049.2	1546.8	1377.2	1331.3
22.5°	2700.6	1895.5	1421.6	1283.7	1240.9
25°	2613.4	1735.4	1317.0	1191.8	1152.2
27.5°	2516.8	1613.4	1229.9	1112.6	1079.3
30°	2402.6	1494.5	1141.1	1036.5	1009.6
32.5°	2272.7	1383.6	1061.9	969.9	938.2
35°	2120.5	1282.2	989.0	905.0	878.0
37.5°	1958.9	1182.3	919.2	846.3	824.1
40°	1778.2	1095.1	854.2	789.3	778.2
42.5°	1592.8	1008.0	795.6	740.1	730.6
45°	1428.0	924.0	737.0	695.8	692.6
47.5°	1267.9	847.9	683.1	651.4	648.2
50°	1126.8	768.7	629.2	608.6	607.0
52.5°	992.1	698.9	578.5	567.4	570.5
55°	870.1	632.4	530.9	524.6	527.8
57.5°	757.6	570.5	483.4	485.0	489.7
60°	657.7	507.2	435.8	442.2	448.5
62.5°	570.5	448.5	389.9	399.4	405.7
65°	486.6	389.9	345.5	353.4	358.2
67.5°	412.1	334.4	301.1	310.6	312.2
70°	339.2	283.7	256.7	266.3	266.3
72.5°	275.8	231.4	214.0	218.7	220.3
75°	214.0	183.8	171.2	175.9	177.5
77.5°	161.7	139.5	130.0	134.7	133.1
80°	112.5	98.3	93.5	91.9	90.3
82.5°	69.7	61.8	57.1	58.6	57.1
85°	34.9	30.1	30.1	30.1	30.1
87.5°	11.1	11.1	11.1	11.1	11.1
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	22.58	24.08	22.94	24.39	24.71	21.08	22.58	21.44	22.89	23.20
	3H	24.17	25.51	24.54	25.84	26.20	22.79	24.14	23.17	24.46	24.83
	4H	24.69	25.95	25.09	26.30	26.68	23.37	24.63	23.77	24.98	25.36
	6H	25.02	26.18	25.43	26.55	26.94	23.72	24.88	24.13	25.25	25.64
	8H	25.09	26.20	25.52	26.59	26.99	23.79	24.90	24.22	25.29	25.69
	12H	25.12	26.18	25.55	26.56	26.99	23.82	24.89	24.25	25.27	25.70
4H	2H	22.89	24.15	23.29	24.50	24.88	21.64	22.90	22.04	23.25	23.63
	3H	24.67	25.72	25.08	26.12	26.52	23.55	24.60	23.96	25.00	25.40
	4H	25.30	26.24	25.73	26.66	27.10	24.25	25.19	24.68	25.61	26.05
	6H	25.73	26.55	26.19	27.00	27.46	24.70	25.52	25.16	25.96	26.42
	8H	25.84	26.60	26.30	27.05	27.52	24.80	25.57	25.27	26.01	26.48
	12H	25.89	26.57	26.37	27.05	27.52	24.86	25.54	25.34	26.02	26.49
8H	4H	25.45	26.21	25.91	26.66	27.13	24.49	25.25	24.95	25.70	26.17
	6H	25.96	26.59	26.45	27.08	27.56	25.03	25.66	25.52	26.15	26.63
	8H	26.10	26.67	26.62	27.18	27.67	25.18	25.74	25.69	26.25	26.74
	12H	26.19	26.69	26.70	27.18	27.75	25.27	25.77	25.78	26.26	26.83
12H	4H	25.45	26.13	25.93	26.61	27.08	24.50	25.18	24.98	25.66	26.13
	6H	25.96	26.52	26.47	27.03	27.52	25.05	25.61	25.56	26.12	26.61
	8H	26.14	26.64	26.65	27.13	27.70	25.24	25.74	25.75	26.23	26.80