

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P997829

Luminaire Tested: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997829
REPORT IS A COMBINATION OF REPORTS P983565 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

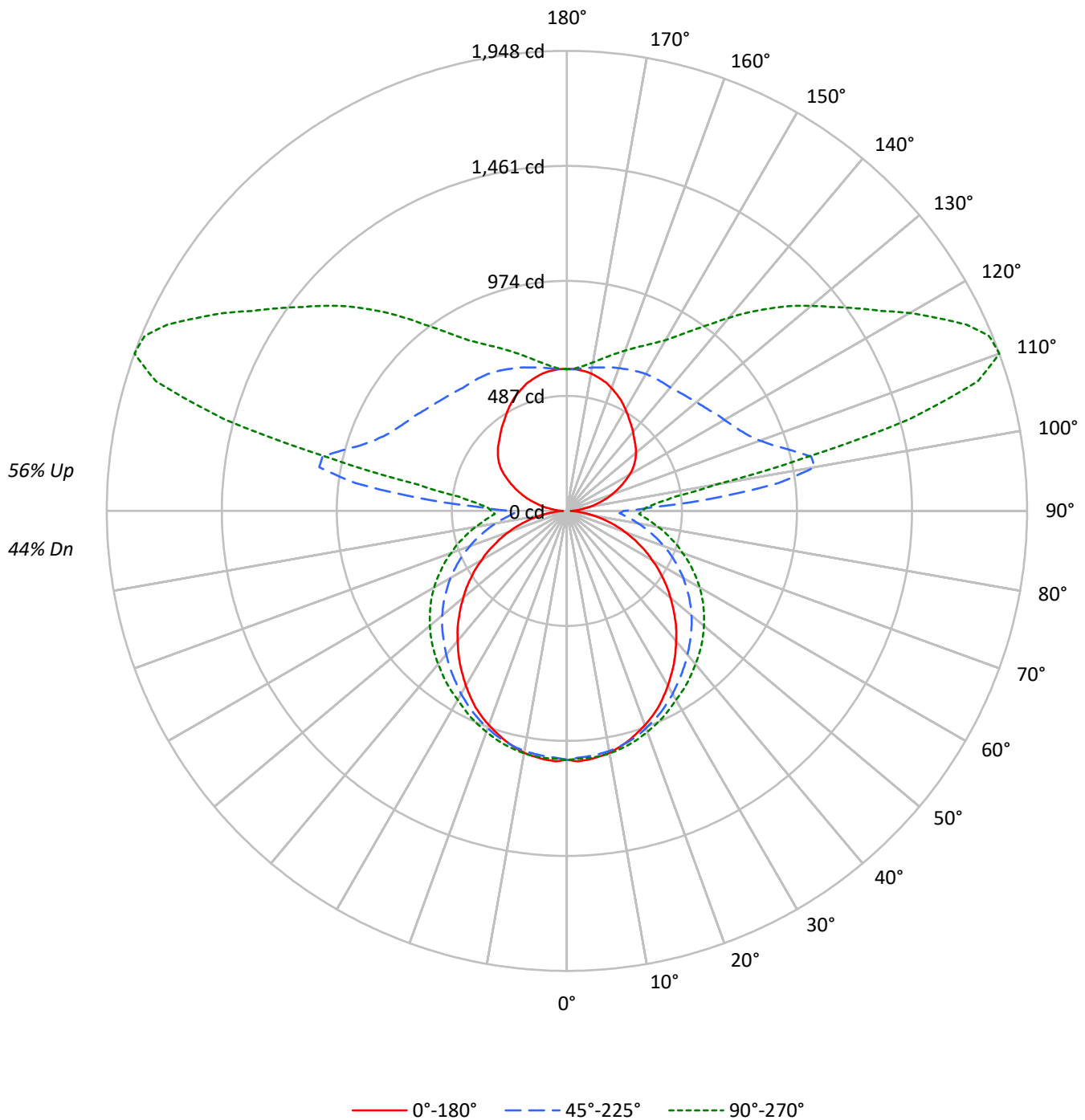
Lumens per Lamp: N/A
Luminaire Lumens: 8209.8 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 96.3
Input Voltage (V):
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

TEST NUMBER: P997829

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

Luminous Intensity Polar Plot



TEST NUMBER: P997829

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50
1	95	90	86	82	87	82	79	75	68	65	63	55	53	51	42	41	40
2	86	78	71	66	78	71	66	61	59	55	51	47	44	41	36	34	32
3	78	68	60	54	71	62	56	50	51	46	42	41	38	34	32	29	27
4	71	60	52	45	65	55	48	42	45	40	36	36	32	29	28	25	23
5	65	53	45	39	59	49	41	36	40	35	30	33	28	25	25	22	20
6	60	48	39	33	54	44	36	31	36	30	26	29	25	22	23	20	17
7	55	43	35	29	50	39	32	27	33	27	23	27	22	19	21	18	15
8	51	39	31	25	47	36	29	24	30	24	20	24	20	17	19	16	14
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	18	14	12
10	44	32	25	20	41	30	23	19	25	20	16	20	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16681	16681	16681
5°	16757	15969	15880
10°	16645	15416	15191
15°	16409	14845	14486
20°	16112	14243	13816
25°	15821	13668	13209
30°	15411	13083	12607
35°	14996	12520	12166
40°	14558	12033	11726
45°	14144	11591	11345
50°	13695	11183	10966
55°	13227	10751	10583
60°	12651	10300	10179
65°	12055	9782	9714
70°	11377	9225	9213
75°	10511	8668	8741
80°	9141	8090	8252
85°	7769	7544	7828

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14144 cd/sqm

TEST NUMBER: P997829

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	1.2
10°-20°	286.5	3.5
20°-30°	434.1	5.3
30°-40°	528.7	6.4
40°-50°	568.8	6.9
50°-60°	552.4	6.7
60°-70°	482.4	5.9
70°-80°	371.3	4.5
80°-90°	252.5	3.1
90°-100°	414.9	5.1
100°-110°	947.9	11.5
110°-120°	947.4	11.5
120°-130°	757.1	9.2
130°-140°	590.7	7.2
140°-150°	434.9	5.3
150°-160°	303.4	3.7
160°-170°	178.7	2.2
170°-180°	58.1	0.7
0°-30°	820.6	10.0
0°-40°	1349.2	16.4
0°-60°	2470.4	30.1
0°-90°	3576.6	43.6
90°-120°	2310.2	28.1
90°-150°	4093.0	49.9
90°-180°	4633.0	56.4
0°-180°	8209.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1057	1052	1043	1052	1051	100
15°	1008	1011	1011	1025	1023	284
25°	916	927	941	959	964	421
35°	790	816	845	878	889	494
45°	648	689	742	790	805	500
55°	496	551	631	686	706	444
65°	339	414	504	567	586	337
75°	188	273	371	437	457	199
85°	55	150	247	312	333	58
90°	16	120	241	300	319	13
95°	53	183	628	404	384	51
105°	148	264	987	1714	1502	158
115°	254	336	807	1614	1866	252
125°	349	413	740	1290	1496	311
135°	408	486	697	1054	1212	316
145°	464	533	676	849	936	291
155°	528	570	657	743	772	243
165°	575	592	629	667	678	162
175°	599	600	605	612	611	57
180°	600	600	600	600	600	

TEST NUMBER: P997829

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1053.8	1053.8	1053.8	1053.8	1053.8
2.5°	1061.5	1056.9	1046.2	1053.8	1050.8
5°	1056.9	1052.3	1043.1	1052.3	1050.8
7.5°	1049.2	1046.2	1038.5	1049.2	1047.7
10°	1040.1	1037.0	1032.4	1044.7	1043.1
12.5°	1024.8	1026.3	1023.3	1035.5	1034.0
15°	1008.0	1011.1	1011.1	1024.8	1023.3
17.5°	986.6	992.7	997.3	1011.1	1011.1
20°	965.2	972.9	979.0	995.8	995.8
22.5°	942.3	951.5	960.7	977.5	980.5
25°	916.4	927.1	940.8	959.1	963.7
27.5°	885.8	902.6	917.9	940.8	943.9
30°	855.3	875.1	895.0	919.4	924.0
32.5°	821.7	844.6	869.0	898.0	907.2
35°	789.6	815.6	844.6	878.2	888.9
37.5°	754.5	783.5	820.1	856.8	867.5
40°	719.3	752.9	794.2	833.9	847.6
42.5°	685.7	719.3	768.2	812.5	826.3
45°	647.6	688.8	742.3	789.6	804.9
47.5°	610.9	655.2	716.3	765.2	782.0
50°	572.7	620.1	688.8	740.7	757.5
52.5°	536.1	586.5	659.8	713.2	731.6
55°	496.4	551.3	630.8	685.7	705.6
57.5°	458.2	519.3	598.7	658.3	678.1
60°	416.9	482.6	569.7	627.7	649.1
62.5°	380.3	449.0	536.1	598.7	618.5
65°	339.1	413.9	504.0	566.6	586.5
67.5°	302.4	380.3	471.9	534.5	555.9
70°	262.7	342.1	436.8	502.5	520.8
72.5°	226.0	308.5	404.7	468.9	491.8
75°	187.9	273.4	371.1	436.8	456.7
77.5°	151.2	239.8	339.1	404.7	426.1
80°	114.5	207.7	307.0	371.1	392.5
82.5°	84.0	175.6	276.4	340.6	360.4
85°	55.0	149.7	247.4	311.6	332.9
87.5°	33.6	125.2	223.0	285.6	305.5
90°	16.5	119.5	240.8	300.2	319.1
92.5°	31.0	149.6	365.7	329.4	336.1
95°	52.6	183.2	628.1	404.5	383.6
97.5°	70.7	207.4	902.5	564.4	460.3
100°	99.6	227.6	1064.6	892.0	639.2
102.5°	124.6	246.6	1059.7	1351.4	1019.5
105°	148.4	264.3	986.7	1713.7	1502.5
107.5°	176.1	282.1	918.3	1837.1	1823.9
110°	202.3	300.4	869.9	1803.0	1947.9

TEST NUMBER: P997829

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	227.7	319.1	833.8	1717.8	1934.9
115°	254.3	336.3	807.3	1614.4	1866.2
117.5°	280.5	355.0	787.3	1516.6	1768.4
120°	305.9	373.2	770.2	1426.4	1675.8
122.5°	330.1	393.4	756.3	1355.2	1576.7
125°	349.4	412.8	739.9	1289.6	1495.6
127.5°	366.7	432.6	727.3	1230.6	1417.6
130°	381.7	451.6	715.8	1172.7	1351.1
132.5°	395.6	470.2	705.5	1112.9	1283.8
135°	407.8	486.4	696.7	1054.3	1212.0
137.5°	420.5	500.2	689.1	995.2	1140.9
140°	435.5	511.4	681.8	941.7	1067.5
142.5°	450.5	521.8	678.7	891.5	995.6
145°	464.0	533.3	676.4	849.0	935.6
147.5°	480.2	542.6	673.0	811.8	879.9
150°	496.4	551.8	669.5	785.0	834.6
152.5°	512.5	561.0	663.7	763.6	801.1
155°	527.5	569.6	656.8	742.8	772.2
157.5°	540.2	576.6	649.9	723.2	746.8
160°	552.9	583.6	643.0	703.6	722.6
162.5°	565.6	588.7	637.2	685.1	699.5
165°	574.9	592.2	629.1	667.2	677.6
167.5°	582.9	595.6	622.2	651.0	656.8
170°	591.0	597.4	616.4	636.0	638.3
172.5°	595.6	599.0	609.5	622.8	623.3
175°	599.1	599.7	604.9	612.3	610.6
177.5°	601.4	600.2	600.2	604.9	601.4
180°	600.2	600.2	600.2	600.2	600.2

TEST NUMBER: P997829

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-D4

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	14.37	15.22	15.37	16.24	17.59	17.45	18.29	18.45	19.31	20.67
	3H	15.83	16.60	16.84	17.62	19.00	20.03	20.80	21.04	21.83	23.20
	4H	16.30	17.03	17.33	18.06	19.45	21.29	22.02	22.31	23.04	24.43
	6H	16.59	17.26	17.62	18.30	19.69	22.58	23.26	23.61	24.29	25.69
	8H	16.65	17.29	17.68	18.34	19.73	23.24	23.88	24.28	24.94	26.33
	12H	16.66	17.28	17.71	18.32	19.74	23.97	24.58	25.01	25.62	27.04
4H	2H	15.42	16.15	16.45	17.18	18.56	17.77	18.50	18.80	19.53	20.92
	3H	17.13	17.74	18.16	18.80	20.20	20.56	21.18	21.60	22.24	23.63
	4H	17.75	18.32	18.79	19.37	20.78	21.98	22.55	23.02	23.60	25.02
	6H	18.16	18.66	19.21	19.73	21.14	23.45	23.94	24.50	25.01	26.43
	8H	18.27	18.73	19.32	19.80	21.23	24.20	24.67	25.26	25.73	27.16
	12H	18.31	18.74	19.39	19.81	21.25	25.03	25.45	26.10	26.53	27.97
8H	4H	18.54	19.00	19.59	20.06	21.49	22.12	22.59	23.18	23.65	25.08
	6H	19.17	19.56	20.25	20.66	22.09	23.75	24.14	24.83	25.25	26.67
	8H	19.39	19.74	20.47	20.82	22.27	24.64	24.99	25.72	26.07	27.52
	12H	19.52	19.83	20.61	20.91	22.40	25.63	25.94	26.72	27.03	28.51
12H	4H	18.73	19.16	19.81	20.23	21.67	22.10	22.52	23.17	23.60	25.03
	6H	19.50	19.85	20.59	20.94	22.38	23.78	24.12	24.86	25.21	26.65
	8H	19.81	20.11	20.89	21.20	22.68	24.70	25.01	25.79	26.10	27.58