

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: P997830

Luminaire Tested: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P997830
REPORT IS A COMBINATION OF REPORTS P983567 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-F1
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

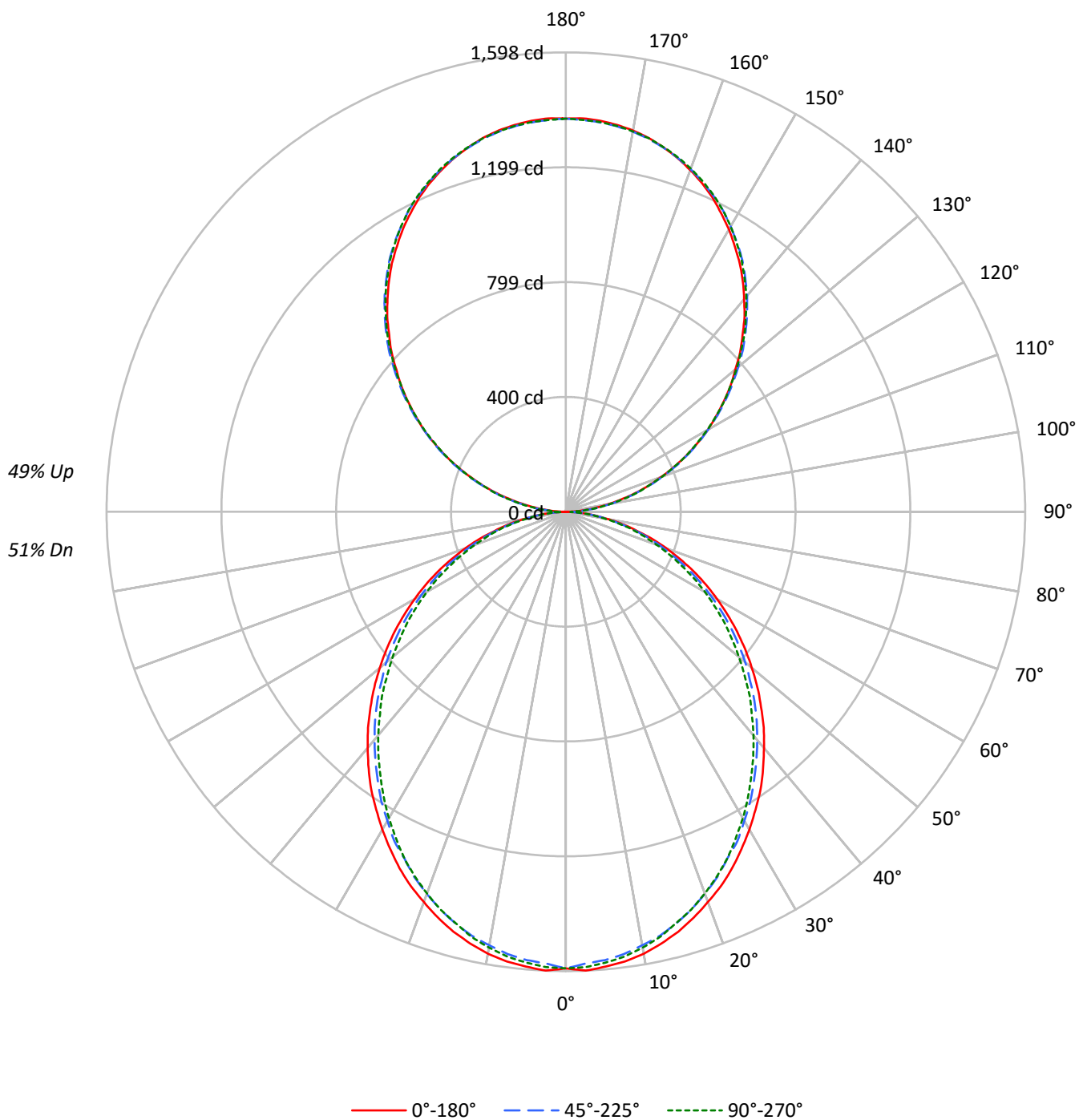
Lumens per Lamp: N/A
Luminaire Lumens: 7869.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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: P997830

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-F1

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57
1	98	94	90	86	91	87	83	80	74	71	69	62	60	58	51	50	48
2	89	82	76	71	82	76	71	66	65	61	57	54	51	49	45	43	41
3	81	72	65	59	75	67	60	55	57	52	48	48	44	41	40	37	35
4	75	64	56	50	69	59	52	47	51	45	41	43	39	35	35	32	30
5	68	57	49	43	63	53	46	40	45	40	35	38	34	31	32	29	26
6	63	51	43	37	58	47	40	35	41	35	31	35	30	27	29	26	23
7	58	46	38	32	54	43	36	31	37	31	27	32	27	24	26	23	20
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	21	18
9	50	38	31	26	47	36	29	24	31	26	22	27	22	19	22	19	17
10	47	35	28	23	44	33	26	22	29	23	20	25	20	17	21	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25142	25142	25142
5°	25183	23965	23795
10°	24979	22873	22420
15°	24613	21773	20971
20°	24118	20575	19601
25°	23625	19325	18232
30°	23005	18152	16796
35°	22421	16912	15385
40°	21698	15689	14051
45°	20979	14475	12743
50°	20197	13242	11386
55°	19372	11922	10101
60°	18443	10493	8766
65°	17426	9040	7360
70°	16136	7451	5944
75°	14354	5744	4590
80°	12191	3903	2954
85°	8843	1817	1258

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 20979 cd/sqm

TEST NUMBER: P997830

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	1.9
10°-20°	420.6	5.3
20°-30°	618.1	7.9
30°-40°	717.9	9.1
40°-50°	717.0	9.1
50°-60°	625.2	7.9
60°-70°	462.2	5.9
70°-80°	261.5	3.3
80°-90°	72.9	0.9
90°-100°	84.6	1.1
100°-110°	269.0	3.4
110°-120°	460.3	5.8
120°-130°	605.3	7.7
130°-140°	679.5	8.6
140°-150°	666.3	8.5
150°-160°	558.9	7.1
160°-170°	370.7	4.7
170°-180°	129.6	1.6
0°-30°	1188.2	15.1
0°-40°	1906.1	24.2
0°-60°	3248.3	41.3
0°-90°	4044.9	51.4
90°-120°	813.9	10.3
90°-150°	2764.9	35.1
90°-180°	3824.0	48.6
0°-180°	7869.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1588	1588	1588	1588	1588	
5°	1588	1582	1565	1578	1575	151
15°	1512	1503	1483	1489	1481	426
25°	1368	1356	1330	1333	1330	630
35°	1181	1165	1141	1132	1124	737
45°	961	950	927	910	904	741
55°	727	718	700	681	674	650
65°	490	481	466	452	444	485
75°	257	254	246	237	240	274
85°	63	61	60	55	54	70
90°	1	15	40	38	39	8
95°	60	72	74	74	72	67
105°	248	252	254	256	256	262
115°	462	469	466	465	462	457
125°	672	682	679	675	674	600
135°	869	882	884	883	880	672
145°	1055	1063	1070	1071	1066	659
155°	1206	1210	1213	1219	1215	555
165°	1312	1311	1311	1319	1314	370
175°	1366	1362	1360	1368	1361	130
180°	1368	1368	1368	1368	1368	

TEST NUMBER: P997830

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1588.3	1588.3	1588.3	1588.3	1588.3
2.5°	1597.5	1589.9	1573.1	1588.3	1585.3
5°	1588.3	1582.2	1565.4	1577.7	1574.6
7.5°	1577.7	1568.5	1551.7	1563.9	1560.9
10°	1560.9	1550.2	1531.8	1544.1	1539.5
12.5°	1537.9	1528.8	1510.5	1518.1	1515.0
15°	1512.0	1502.8	1483.0	1489.1	1481.4
17.5°	1479.9	1470.7	1450.9	1458.5	1450.9
20°	1444.8	1435.6	1414.2	1418.8	1412.7
22.5°	1409.7	1395.9	1376.1	1376.1	1373.0
25°	1368.4	1356.2	1330.2	1333.3	1330.2
27.5°	1322.6	1311.9	1292.1	1287.5	1279.8
30°	1276.8	1264.6	1241.7	1237.1	1231.0
32.5°	1227.9	1218.7	1194.3	1185.1	1179.0
35°	1180.6	1165.3	1140.9	1131.7	1124.1
37.5°	1127.1	1113.4	1088.9	1078.2	1070.6
40°	1072.1	1059.9	1035.5	1021.7	1015.6
42.5°	1018.7	1006.5	982.0	966.8	957.6
45°	960.6	950.0	927.0	910.2	904.1
47.5°	904.1	893.4	869.0	852.2	843.0
50°	844.6	836.9	815.6	794.2	786.5
52.5°	786.5	775.8	756.0	739.2	728.5
55°	727.0	717.8	699.5	681.2	673.5
57.5°	667.4	659.8	639.9	621.6	615.5
60°	607.8	601.7	580.4	563.6	559.0
62.5°	549.8	539.1	523.8	508.6	502.5
65°	490.2	481.1	465.8	452.1	444.4
67.5°	429.2	421.5	407.8	397.1	391.0
70°	372.6	366.5	352.8	342.1	336.0
72.5°	314.6	308.5	300.9	290.2	285.6
75°	256.6	253.5	245.9	236.7	239.8
77.5°	204.7	198.5	195.5	190.9	186.3
80°	152.7	151.2	148.1	143.6	140.5
82.5°	103.9	103.9	102.3	96.2	96.2
85°	62.6	61.1	59.6	55.0	53.5
87.5°	27.5	24.4	21.4	16.8	15.3
90°	1.2	15.0	40.4	38.1	39.2
92.5°	25.4	34.6	35.8	36.9	36.9
95°	60.0	71.6	73.9	73.9	71.6
97.5°	100.4	110.8	115.4	115.4	115.4
100°	146.6	155.8	159.3	159.3	158.1
102.5°	195.1	202.0	206.6	207.8	206.6
105°	248.2	251.6	253.9	256.2	256.2
107.5°	301.3	305.9	305.9	307.0	301.3
110°	352.0	359.0	359.0	359.0	355.5



TEST NUMBER: P997830

CATALOG NUMBER: SA2XXDIP-B1005D1080UB40-4F0-XX-W2A-F1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	407.5	414.4	413.2	409.8	407.5
115°	461.7	468.6	466.3	465.2	461.7
117.5°	516.0	525.2	519.4	516.0	512.5
120°	570.2	579.4	570.2	570.2	566.7
122.5°	619.8	631.4	625.6	622.1	619.8
125°	671.8	682.2	678.7	675.2	674.1
127.5°	722.6	735.3	730.6	726.0	722.6
130°	769.9	784.9	782.6	780.3	775.7
132.5°	823.0	834.5	835.7	829.9	826.5
135°	869.2	881.9	884.2	883.0	879.5
137.5°	919.9	930.3	932.6	931.5	926.9
140°	965.0	975.4	981.1	981.1	976.5
142.5°	1011.1	1021.5	1025.0	1026.1	1021.5
145°	1055.0	1063.1	1070.0	1071.2	1066.5
147.5°	1094.2	1104.6	1109.2	1111.6	1106.9
150°	1134.6	1141.6	1146.2	1149.6	1146.2
152.5°	1170.4	1177.3	1183.1	1187.7	1183.1
155°	1206.2	1209.7	1213.1	1218.9	1215.4
157.5°	1237.4	1239.7	1242.0	1250.1	1244.3
160°	1265.1	1267.4	1268.5	1275.5	1270.8
162.5°	1290.5	1290.5	1291.6	1299.7	1293.9
165°	1312.4	1311.2	1311.2	1319.3	1313.5
167.5°	1332.0	1328.6	1328.6	1336.6	1330.9
170°	1347.0	1343.6	1342.4	1350.5	1343.6
172.5°	1357.4	1353.9	1352.8	1360.9	1353.9
175°	1365.5	1362.0	1359.7	1367.8	1360.9
177.5°	1370.1	1366.6	1364.3	1371.3	1364.3
180°	1367.8	1367.8	1367.8	1367.8	1367.8

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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	16.57	17.44	17.51	18.40	19.65	17.35	18.22	18.29	19.18	20.44
	3H	17.91	18.69	18.86	19.66	20.93	18.98	19.76	19.93	20.73	22.00
	4H	18.31	19.05	19.28	20.03	21.31	19.57	20.31	20.54	21.29	22.57
	6H	18.53	19.21	19.51	20.19	21.49	19.97	20.66	20.95	21.64	22.93
	8H	18.56	19.21	19.55	20.21	21.50	20.08	20.73	21.07	21.73	23.02
	12H	18.55	19.17	19.55	20.16	21.48	20.13	20.75	21.12	21.74	23.05
4H	2H	17.04	17.78	18.01	18.75	20.04	17.68	18.42	18.66	19.40	20.68
	3H	18.56	19.18	19.54	20.18	21.48	19.46	20.08	20.45	21.09	22.38
	4H	19.06	19.63	20.06	20.63	21.95	20.14	20.71	21.14	21.71	23.03
	6H	19.37	19.85	20.37	20.87	22.19	20.64	21.13	21.65	22.15	23.47
	8H	19.42	19.88	20.43	20.89	22.23	20.78	21.24	21.79	22.25	23.59
	12H	19.42	19.84	20.45	20.87	22.20	20.85	21.26	21.87	22.29	23.63
8H	4H	19.24	19.69	20.25	20.71	22.04	20.23	20.69	21.24	21.70	23.03
	6H	19.62	20.00	20.66	21.06	22.39	20.80	21.18	21.83	22.23	23.56
	8H	19.73	20.06	20.77	21.10	22.45	20.99	21.32	22.03	22.36	23.71
	12H	19.76	20.05	20.80	21.09	22.48	21.09	21.38	22.13	22.42	23.81
12H	4H	19.22	19.63	20.25	20.66	22.00	20.20	20.61	21.22	21.64	22.97
	6H	19.64	19.97	20.68	21.02	22.36	20.79	21.12	21.83	22.17	23.52
	8H	19.75	20.05	20.80	21.08	22.48	20.99	21.28	22.03	22.32	23.71