

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: P997806

Luminaire Tested: SA2XXDIP-B1005D1080UB2750-4F0-XX-W2A-F_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997806
REPORT IS A COMBINATION OF REPORTS P983540 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D1080UB2750-4F0-XX-W2A-F_4000K
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

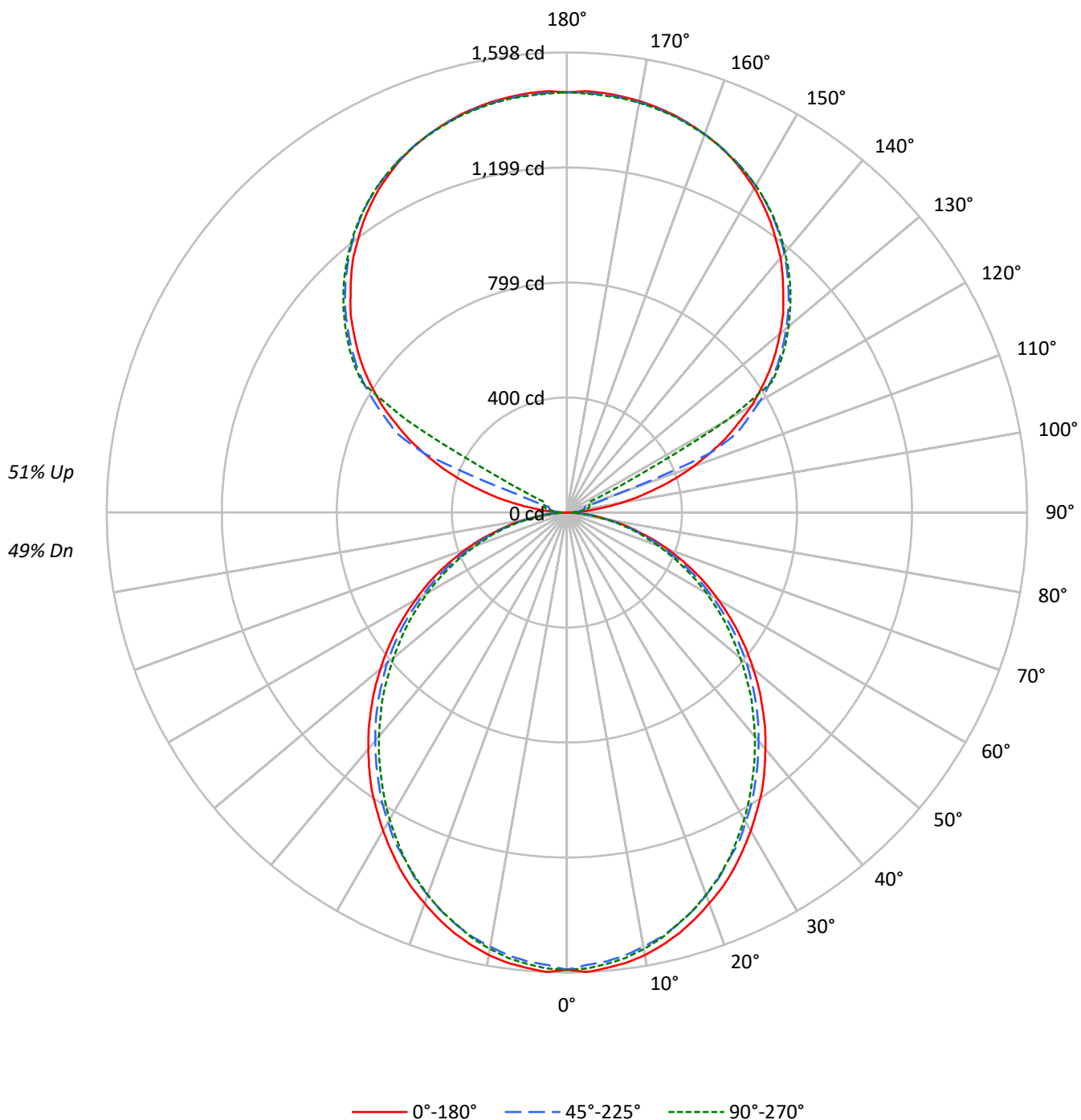
Lumens per Lamp: N/A
Luminaire Lumens: 8323.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49		
1	97	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46	41		
2	89	81	75	70	81	75	70	65	63	60	56	53	50	47	43	41	39	34		
3	81	72	64	58	74	66	60	55	56	51	47	47	43	40	38	35	33	29		
4	74	63	55	49	68	59	52	46	50	44	40	41	38	34	34	31	29	25		
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	30	27	25	22		
6	63	51	42	37	57	47	40	34	40	34	30	34	29	26	28	24	22	19		
7	58	46	38	32	53	42	35	30	36	31	27	31	26	23	25	22	20	17		
8	54	41	34	28	49	39	32	27	33	28	24	28	24	21	23	20	18	15		
9	50	38	30	25	46	35	29	24	30	25	21	26	22	18	21	18	16	14		
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	14	12		

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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.5	1.8
10°-20°	420.6	5.1
20°-30°	618.1	7.4
30°-40°	717.9	8.6
40°-50°	717.0	8.6
50°-60°	625.2	7.5
60°-70°	462.2	5.6
70°-80°	261.5	3.1
80°-90°	71.6	0.9
90°-100°	48.1	0.6
100°-110°	179.4	2.2
110°-120°	475.9	5.7
120°-130°	789.3	9.5
130°-140°	838.4	10.1
140°-150°	779.2	9.4
150°-160°	626.5	7.5
160°-170°	403.7	4.9
170°-180°	138.9	1.7
0°-30°	1188.2	14.3
0°-40°	1906.1	22.9
0°-60°	3248.3	39.0
0°-90°	4043.6	48.6
90°-120°	703.5	8.5
90°-150°	3110.3	37.4
90°-180°	4279.0	51.4
0°-180°	8323.0	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	13	21	26	28	8
95°	69	34	41	46	45	81
105°	321	353	64	76	80	343
115°	607	625	652	163	87	598
125°	859	872	892	900	903	766
135°	1063	1080	1089	1100	1097	821
145°	1233	1232	1250	1257	1252	771
155°	1357	1348	1360	1367	1358	625
165°	1430	1424	1427	1434	1427	404
175°	1463	1456	1458	1465	1454	139
180°	1460	1460	1460	1460	1460	

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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°	1.1	12.7	21.1	26.4	28.5
92.5°	26.4	22.2	25.3	27.5	28.5
95°	68.7	33.8	41.2	46.5	45.4
97.5°	123.6	37.0	53.9	57.0	58.1
100°	187.0	42.2	60.2	68.7	70.8
102.5°	256.7	254.6	62.3	73.9	77.1
105°	321.1	352.8	64.4	76.0	80.3
107.5°	396.1	422.5	66.5	78.2	82.4
110°	467.9	490.1	184.8	79.2	83.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	535.5	554.5	536.6	81.3	84.5
115°	607.3	625.3	651.7	162.7	86.6
117.5°	669.7	690.8	708.7	557.7	281.0
120°	739.4	755.2	774.2	786.9	644.3
122.5°	798.5	815.4	836.5	842.9	843.9
125°	858.7	872.5	892.5	899.9	903.1
127.5°	913.7	928.4	944.3	954.8	955.9
130°	965.4	982.3	993.9	1005.5	1004.5
132.5°	1018.2	1032.0	1043.6	1053.1	1052.0
135°	1062.6	1079.5	1089.0	1099.6	1097.4
137.5°	1109.1	1121.7	1132.3	1142.9	1139.7
140°	1154.5	1162.9	1174.5	1184.1	1178.8
142.5°	1192.5	1199.9	1213.6	1222.1	1216.8
145°	1232.6	1231.6	1249.5	1256.9	1251.7
147.5°	1267.5	1264.3	1282.3	1287.6	1283.3
150°	1301.3	1293.9	1310.8	1317.1	1311.9
152.5°	1329.8	1321.4	1337.2	1343.5	1336.2
155°	1357.3	1347.8	1360.4	1366.8	1358.3
157.5°	1379.5	1371.0	1380.5	1387.9	1379.5
160°	1398.5	1392.1	1398.5	1404.8	1397.4
162.5°	1415.4	1409.0	1414.3	1421.7	1412.2
165°	1430.2	1423.8	1427.0	1434.4	1427.0
167.5°	1441.8	1435.4	1438.6	1446.0	1436.5
170°	1451.3	1444.9	1447.1	1454.5	1444.9
172.5°	1457.6	1451.3	1453.4	1460.8	1451.3
175°	1462.9	1455.5	1457.6	1465.0	1454.5
177.5°	1465.0	1457.6	1458.7	1466.1	1456.6
180°	1459.7	1459.7	1459.7	1459.7	1459.7



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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	16.31	17.16	17.28	18.14	19.43	17.09	17.94	18.06	18.92	20.21
	3H	17.64	18.40	18.62	19.40	20.71	18.71	19.47	19.69	20.47	21.78
	4H	18.05	18.77	19.04	19.76	21.09	19.31	20.03	20.30	21.02	22.34
	6H	18.27	18.93	19.27	19.93	21.27	19.71	20.37	20.71	21.37	22.71
	8H	18.30	18.93	19.31	19.95	21.28	19.82	20.45	20.83	21.47	22.80
	12H	18.29	18.89	19.30	19.90	21.26	19.86	20.46	20.88	21.47	22.83
4H	2H	16.77	17.49	17.77	18.49	19.81	17.42	18.14	18.42	19.13	20.46
	3H	18.29	18.89	19.30	19.92	21.25	19.20	19.80	20.21	20.82	22.16
	4H	18.80	19.35	19.81	20.36	21.72	19.88	20.43	20.89	21.45	22.80
	6H	19.10	19.57	20.13	20.61	21.97	20.37	20.85	21.40	21.89	23.24
	8H	19.15	19.60	20.18	20.63	22.00	20.52	20.96	21.54	21.99	23.36
	12H	19.15	19.55	20.20	20.60	21.98	20.58	20.98	21.62	22.03	23.40
8H	4H	18.97	19.41	20.00	20.45	21.82	19.96	20.40	20.99	21.44	22.81
	6H	19.35	19.72	20.41	20.79	22.16	20.53	20.90	21.58	21.97	23.34
	8H	19.46	19.78	20.52	20.84	22.22	20.72	21.04	21.78	22.10	23.49
	12H	19.49	19.77	20.55	20.83	22.25	20.82	21.10	21.88	22.16	23.58
12H	4H	18.95	19.35	20.00	20.40	21.78	19.93	20.33	20.97	21.37	22.75
	6H	19.37	19.69	20.43	20.75	22.14	20.52	20.84	21.58	21.91	23.29
	8H	19.48	19.77	20.55	20.82	22.25	20.72	21.00	21.78	22.06	23.49