

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: P997824

Luminaire Tested: SA2XXDIP-B1005D1080UB35-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997824
REPORT IS A COMBINATION OF REPORTS P983558 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B1005D1080UB35-4F0-XX-W2A-F1
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

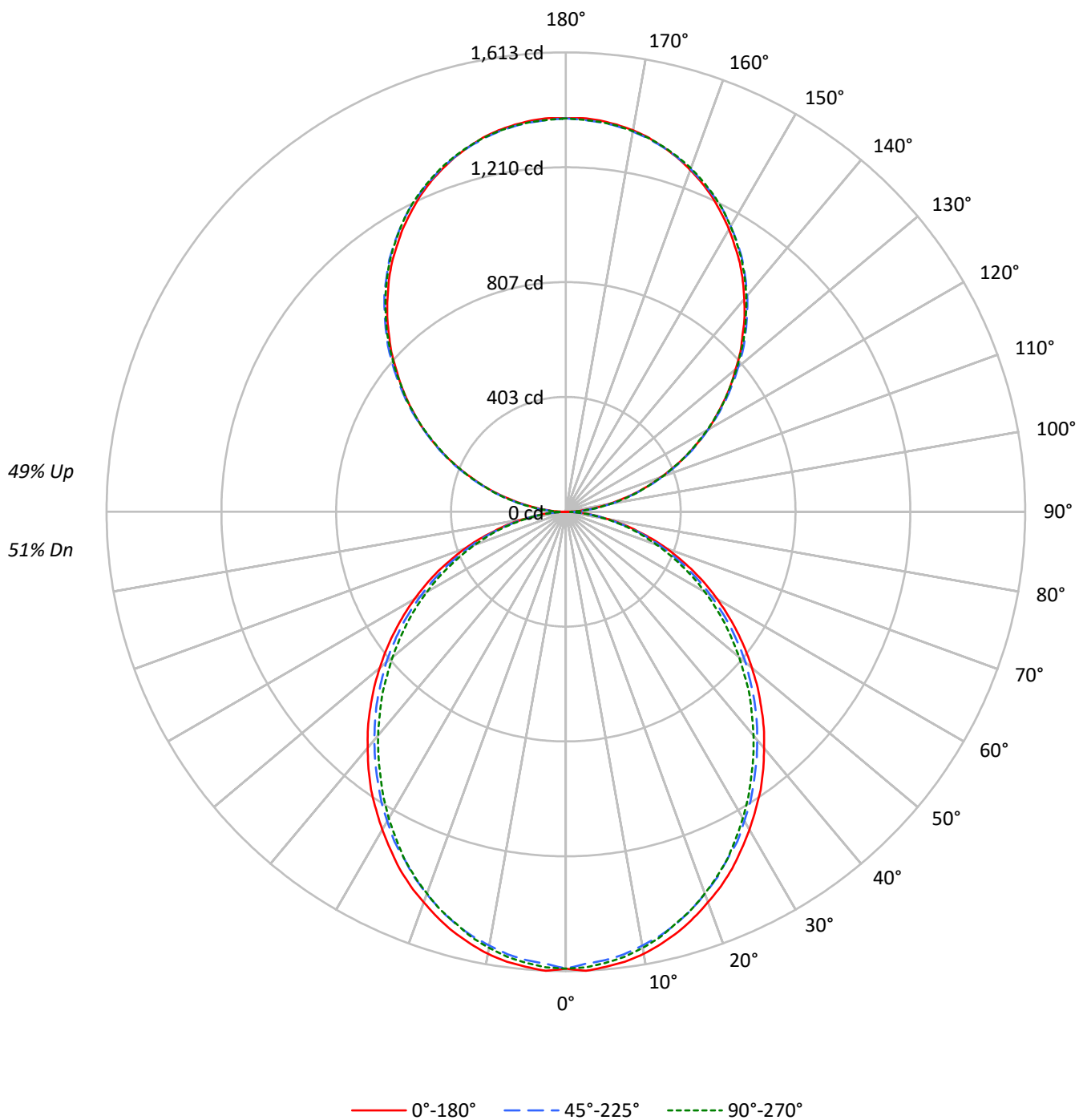
Lumens per Lamp: N/A
Luminaire Lumens: 7947.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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
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°	25392	25392	25392
5°	25433	24202	24031
10°	25225	23099	22641
15°	24856	21987	21179
20°	24357	20779	19795
25°	23859	19517	18413
30°	23232	18330	16963
35°	22644	17079	15537
40°	21913	15843	14190
45°	21189	14619	12870
50°	20396	13372	11499
55°	19564	12039	10202
60°	18629	10597	8852
65°	17601	9129	7433
70°	16296	7525	6002
75°	14494	5800	4636
80°	12311	3942	2983
85°	8927	1836	1270

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 21189 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.0	1.9
10°-20°	424.8	5.3
20°-30°	624.2	7.9
30°-40°	725.0	9.1
40°-50°	724.1	9.1
50°-60°	631.4	7.9
60°-70°	466.7	5.9
70°-80°	264.1	3.3
80°-90°	73.6	0.9
90°-100°	85.5	1.1
100°-110°	271.7	3.4
110°-120°	464.8	5.8
120°-130°	611.3	7.7
130°-140°	686.2	8.6
140°-150°	672.9	8.5
150°-160°	564.5	7.1
160°-170°	374.4	4.7
170°-180°	130.8	1.6
0°-30°	1200.0	15.1
0°-40°	1925.0	24.2
0°-60°	3280.5	41.3
0°-90°	4084.9	51.4
90°-120°	822.0	10.3
90°-150°	2792.4	35.1
90°-180°	3862.0	48.6
0°-180°	7947.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1604	1598	1581	1593	1590	152
15°	1527	1518	1498	1504	1496	430
25°	1382	1370	1343	1346	1343	636
35°	1192	1177	1152	1143	1135	745
45°	970	959	936	919	913	749
55°	734	725	706	688	680	656
65°	495	486	470	456	449	490
75°	259	256	248	239	242	277
85°	63	62	60	56	54	70
90°	1	15	41	38	40	8
95°	61	72	75	75	72	68
105°	251	254	256	259	259	265
115°	466	473	471	470	466	461
125°	678	689	685	682	681	606
135°	878	891	893	892	888	678
145°	1066	1074	1081	1082	1077	666
155°	1218	1222	1225	1231	1228	561
165°	1325	1324	1324	1332	1327	374
175°	1379	1376	1373	1381	1374	131
180°	1381	1381	1381	1381	1381	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1604.1	1604.1	1604.1	1604.1	1604.1
2.5°	1613.3	1605.6	1588.6	1604.1	1601.0
5°	1604.1	1597.9	1580.9	1593.3	1590.2
7.5°	1593.3	1584.0	1567.0	1579.4	1576.3
10°	1576.3	1565.5	1547.0	1559.3	1554.7
12.5°	1553.2	1543.9	1525.4	1533.1	1530.0
15°	1526.9	1517.7	1497.6	1503.8	1496.1
17.5°	1494.6	1485.3	1465.3	1473.0	1465.3
20°	1459.1	1449.8	1428.2	1432.9	1426.7
22.5°	1423.6	1409.7	1389.7	1389.7	1386.6
25°	1382.0	1369.6	1343.4	1346.5	1343.4
27.5°	1335.7	1324.9	1304.8	1300.2	1292.5
30°	1289.4	1277.1	1253.9	1249.3	1243.2
32.5°	1240.1	1230.8	1206.1	1196.9	1190.7
35°	1192.3	1176.8	1152.2	1142.9	1135.2
37.5°	1138.3	1124.4	1099.7	1088.9	1081.2
40°	1082.7	1070.4	1045.7	1031.8	1025.7
42.5°	1028.8	1016.4	991.7	976.3	967.1
45°	970.2	959.4	936.2	919.3	913.1
47.5°	913.1	902.3	877.6	860.6	851.4
50°	852.9	845.2	823.6	802.0	794.3
52.5°	794.3	783.5	763.5	746.5	735.7
55°	734.2	724.9	706.4	687.9	680.2
57.5°	674.0	666.3	646.3	627.7	621.6
60°	613.9	607.7	586.1	569.1	564.5
62.5°	555.3	544.5	529.0	513.6	507.4
65°	495.1	485.8	470.4	456.5	448.8
67.5°	433.4	425.7	411.8	401.0	394.8
70°	376.3	370.2	356.3	345.5	339.3
72.5°	317.7	311.6	303.8	293.1	288.4
75°	259.1	256.0	248.3	239.1	242.2
77.5°	206.7	200.5	197.4	192.8	188.2
80°	154.2	152.7	149.6	145.0	141.9
82.5°	104.9	104.9	103.3	97.2	97.2
85°	63.2	61.7	60.2	55.5	54.0
87.5°	27.8	24.7	21.6	17.0	15.4
90°	1.2	15.2	40.8	38.5	39.6
92.5°	25.6	35.0	36.1	37.3	37.3
95°	60.6	72.3	74.6	74.6	72.3
97.5°	101.4	111.9	116.6	116.6	116.6
100°	148.0	157.4	160.9	160.9	159.7
102.5°	197.0	204.0	208.7	209.8	208.7
105°	250.6	254.1	256.5	258.8	258.8
107.5°	304.3	308.9	308.9	310.1	304.3
110°	355.5	362.5	362.5	362.5	359.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	411.5	418.5	417.3	413.8	411.5
115°	466.3	473.3	471.0	469.8	466.3
117.5°	521.1	530.4	524.6	521.1	517.6
120°	575.9	585.2	575.9	575.9	572.4
122.5°	626.0	637.6	631.8	628.3	626.0
125°	678.4	688.9	685.4	681.9	680.8
127.5°	729.7	742.6	737.9	733.2	729.7
130°	777.5	792.7	790.4	788.0	783.4
132.5°	831.2	842.8	844.0	838.2	834.7
135°	877.8	890.6	892.9	891.8	888.3
137.5°	929.1	939.6	941.9	940.7	936.1
140°	974.5	985.0	990.9	990.9	986.2
142.5°	1021.2	1031.7	1035.2	1036.3	1031.7
145°	1065.5	1073.6	1080.6	1081.8	1077.1
147.5°	1105.1	1115.6	1120.3	1122.6	1117.9
150°	1145.9	1152.9	1157.6	1161.1	1157.6
152.5°	1182.0	1189.0	1194.9	1199.5	1194.9
155°	1218.2	1221.7	1225.2	1231.0	1227.5
157.5°	1249.7	1252.0	1254.3	1262.5	1256.6
160°	1277.6	1280.0	1281.1	1288.1	1283.5
162.5°	1303.3	1303.3	1304.4	1312.6	1306.8
165°	1325.4	1324.3	1324.3	1332.4	1326.6
167.5°	1345.2	1341.7	1341.7	1349.9	1344.1
170°	1360.4	1356.9	1355.7	1363.9	1356.9
172.5°	1370.9	1367.4	1366.2	1374.4	1367.4
175°	1379.0	1375.5	1373.2	1381.4	1374.4
177.5°	1383.7	1380.2	1377.9	1384.9	1377.9
180°	1381.4	1381.4	1381.4	1381.4	1381.4

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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	16.60	17.48	17.55	18.44	19.69	17.38	18.26	18.33	19.22	20.47
	3H	17.94	18.72	18.90	19.69	20.97	19.01	19.79	19.97	20.76	22.04
	4H	18.35	19.09	19.32	20.06	21.34	19.60	20.34	20.57	21.32	22.60
	6H	18.56	19.25	19.55	20.23	21.52	20.01	20.69	20.99	21.67	22.97
	8H	18.60	19.25	19.58	20.24	21.54	20.12	20.77	21.10	21.76	23.06
	12H	18.59	19.21	19.58	20.20	21.52	20.16	20.78	21.15	21.77	23.09
4H	2H	17.07	17.81	18.05	18.79	20.07	17.72	18.46	18.69	19.43	20.71
	3H	18.59	19.21	19.58	20.21	21.51	19.50	20.12	20.48	21.12	22.42
	4H	19.10	19.66	20.09	20.66	21.98	20.18	20.74	21.17	21.74	23.06
	6H	19.40	19.89	20.41	20.91	22.23	20.68	21.16	21.68	22.18	23.50
	8H	19.46	19.91	20.46	20.93	22.26	20.82	21.27	21.83	22.29	23.62
	12H	19.46	19.87	20.48	20.90	22.24	20.88	21.29	21.91	22.32	23.66
8H	4H	19.27	19.73	20.28	20.74	22.08	20.27	20.72	21.27	21.73	23.07
	6H	19.66	20.03	20.69	21.09	22.42	20.83	21.21	21.87	22.27	23.60
	8H	19.76	20.09	20.80	21.13	22.48	21.02	21.36	22.06	22.40	23.75
	12H	19.79	20.08	20.84	21.12	22.51	21.12	21.42	22.17	22.45	23.84
12H	4H	19.26	19.67	20.28	20.70	22.04	20.23	20.64	21.26	21.67	23.01
	6H	19.67	20.01	20.71	21.05	22.40	20.83	21.16	21.87	22.20	23.55
	8H	19.79	20.08	20.83	21.12	22.51	21.02	21.32	22.07	22.35	23.74