

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: P997820

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

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P997820
REPORT IS A COMBINATION OF REPORTS P983554 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-D
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

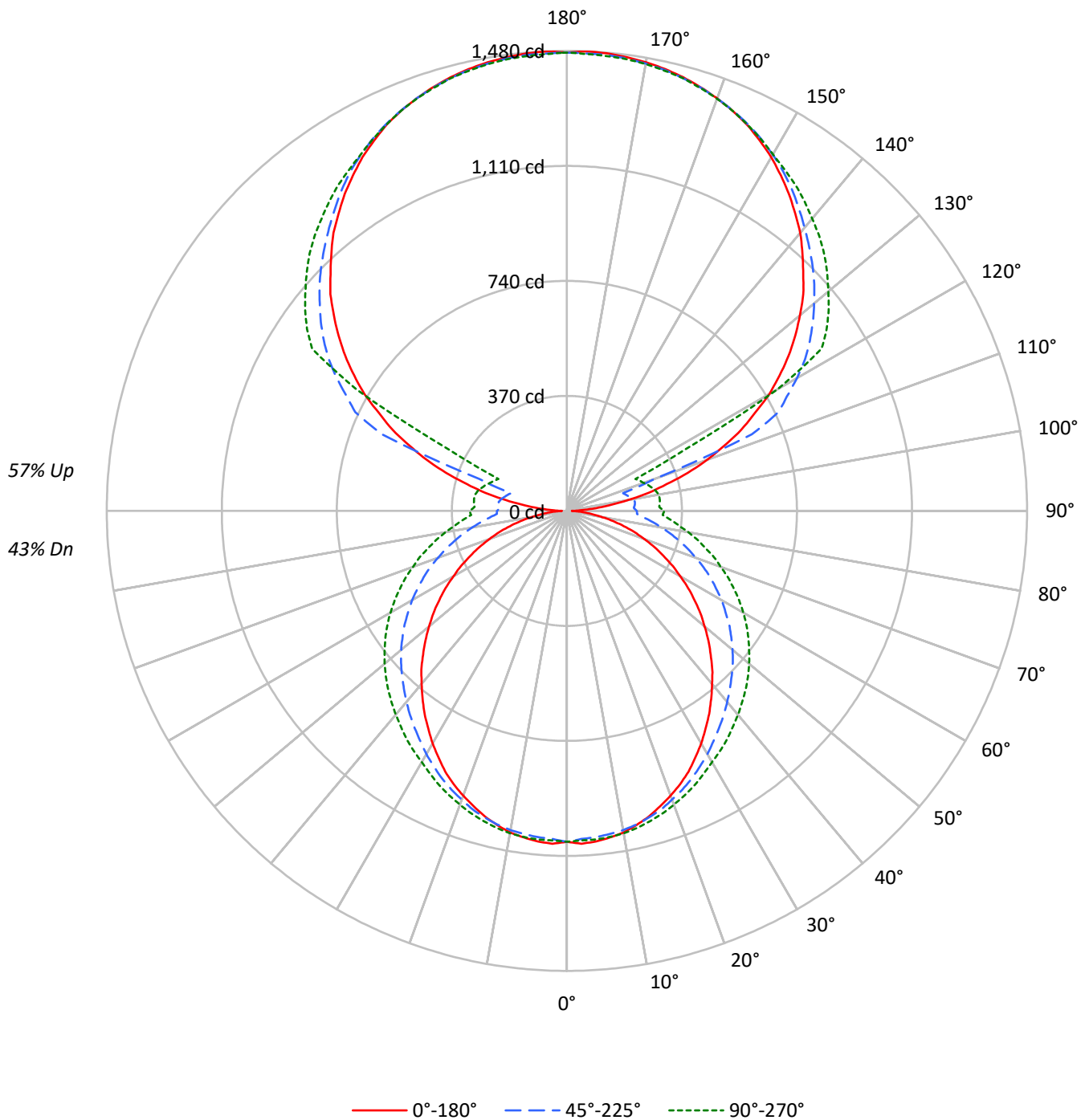
Lumens per Lamp: N/A
Luminaire Lumens: 8386.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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

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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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50
1	95	90	86	82	86	82	79	75	68	65	63	54	52	51	42	41	39
2	86	78	71	66	78	71	65	61	59	54	51	47	44	41	36	34	32
3	78	68	60	54	71	62	55	50	51	46	42	41	37	34	32	29	27
4	71	60	52	45	65	55	48	42	45	40	35	36	32	29	28	25	23
5	65	53	45	39	59	49	41	36	40	35	30	32	28	25	25	22	20
6	60	47	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	26	22	19	21	17	15
8	51	39	31	25	47	36	29	24	30	24	20	24	20	17	19	16	13
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	17	14	12
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16847	16847	16847
5°	16924	16128	16037
10°	16809	15569	15342
15°	16572	14992	14631
20°	16273	14385	13954
25°	15978	13805	13340
30°	15564	13214	12733
35°	15146	12644	12286
40°	14704	12153	11844
45°	14283	11705	11458
50°	13832	11295	11076
55°	13358	10856	10688
60°	12778	10401	10279
65°	12172	9879	9810
70°	11489	9316	9305
75°	10612	8755	8828
80°	9237	8169	8334
85°	7840	7620	7908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14283 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	1.2
10°-20°	289.4	3.5
20°-30°	438.5	5.2
30°-40°	533.9	6.4
40°-50°	574.5	6.9
50°-60°	557.9	6.7
60°-70°	487.2	5.8
70°-80°	375.0	4.5
80°-90°	253.7	3.0
90°-100°	221.9	2.6
100°-110°	307.8	3.7
110°-120°	564.2	6.7
120°-130°	843.8	10.1
130°-140°	866.4	10.3
140°-150°	790.3	9.4
150°-160°	632.7	7.5
160°-170°	407.7	4.9
170°-180°	140.3	1.7
0°-30°	828.7	9.9
0°-40°	1362.6	16.2
0°-60°	2495.0	29.8
0°-90°	3610.9	43.1
90°-120°	1093.8	13.0
90°-150°	3594.3	42.9
90°-180°	4775.0	56.9
0°-180°	8386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1067	1063	1054	1063	1061	101
15°	1018	1021	1021	1035	1034	287
25°	926	936	950	969	973	426
35°	798	824	853	887	898	498
45°	654	696	750	798	813	505
55°	501	557	637	693	713	448
65°	342	418	509	572	592	340
75°	190	276	375	441	461	201
85°	56	151	250	315	336	59
90°	16	118	225	292	313	15
95°	82	119	219	283	300	92
105°	332	409	198	263	285	355
115°	620	655	751	303	243	609
125°	870	884	954	1003	1020	777
135°	1075	1092	1117	1160	1170	831
145°	1245	1244	1262	1279	1281	779
155°	1371	1361	1374	1380	1372	632
165°	1444	1438	1441	1449	1441	408
175°	1478	1470	1472	1480	1469	141
180°	1474	1474	1474	1474	1474	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.3	1064.3	1064.3	1064.3	1064.3
2.5°	1072.0	1067.4	1056.6	1064.3	1061.2
5°	1067.4	1062.8	1053.5	1062.8	1061.2
7.5°	1059.7	1056.6	1048.9	1059.7	1058.1
10°	1050.4	1047.3	1042.7	1055.0	1053.5
12.5°	1035.0	1036.5	1033.5	1045.8	1044.2
15°	1018.0	1021.1	1021.1	1035.0	1033.5
17.5°	996.4	1002.6	1007.2	1021.1	1021.1
20°	974.8	982.6	988.7	1005.7	1005.7
22.5°	951.7	961.0	970.2	987.2	990.3
25°	925.5	936.3	950.2	968.7	973.3
27.5°	894.6	911.6	927.0	950.2	953.2
30°	863.8	883.8	903.9	928.6	933.2
32.5°	829.8	853.0	877.7	907.0	916.2
35°	797.5	823.7	853.0	886.9	897.7
37.5°	762.0	791.3	828.3	865.3	876.1
40°	726.5	760.4	802.1	842.2	856.1
42.5°	692.6	726.5	775.9	820.6	834.5
45°	654.0	695.7	749.6	797.5	812.9
47.5°	617.0	661.7	723.4	772.8	789.7
50°	578.4	626.2	695.7	748.1	765.1
52.5°	541.4	592.3	666.3	720.3	738.8
55°	501.3	556.8	637.0	692.6	712.6
57.5°	462.7	524.4	604.6	664.8	684.9
60°	421.1	487.4	575.3	634.0	655.5
62.5°	384.1	453.5	541.4	604.6	624.7
65°	342.4	418.0	509.0	572.3	592.3
67.5°	305.4	384.1	476.6	539.9	561.5
70°	265.3	345.5	441.1	507.5	526.0
72.5°	228.3	311.6	408.8	473.5	496.7
75°	189.7	276.1	374.8	441.1	461.2
77.5°	152.7	242.2	342.4	408.8	430.3
80°	115.7	209.8	310.0	374.8	396.4
82.5°	84.8	177.4	279.2	344.0	364.0
85°	55.5	151.2	249.9	314.7	336.3
87.5°	33.9	126.5	225.2	288.4	308.5
90°	16.5	117.7	224.9	292.0	312.6
92.5°	40.6	118.0	215.3	277.6	297.2
95°	81.6	118.9	219.0	282.9	300.4
97.5°	135.6	114.4	221.0	281.3	300.9
100°	199.6	110.6	215.0	280.6	299.8
102.5°	268.5	317.3	206.3	273.7	293.8
105°	332.0	408.7	197.8	263.4	284.7
107.5°	407.8	471.4	189.1	253.2	274.5
110°	478.8	532.0	299.3	242.0	263.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	547.1	590.9	643.8	233.3	253.4
115°	619.6	654.7	750.7	303.1	243.3
117.5°	681.0	714.7	797.7	691.3	427.2
120°	751.4	773.6	854.5	910.5	783.5
122.5°	811.1	829.8	908.1	956.3	971.2
125°	870.5	884.3	953.9	1003.1	1020.2
127.5°	925.9	939.3	997.0	1046.2	1061.1
130°	978.2	993.7	1037.8	1086.6	1097.9
132.5°	1031.5	1043.8	1078.8	1123.9	1135.1
135°	1074.8	1091.8	1116.9	1160.0	1170.2
137.5°	1121.7	1134.5	1153.0	1192.9	1200.5
140°	1167.6	1174.6	1189.4	1223.7	1227.6
142.5°	1206.0	1211.9	1225.8	1252.9	1255.2
145°	1245.0	1244.0	1262.1	1278.9	1281.2
147.5°	1280.2	1277.0	1295.2	1302.0	1302.4
150°	1314.4	1306.9	1324.0	1330.4	1325.0
152.5°	1343.2	1334.6	1350.6	1357.0	1349.6
155°	1370.9	1361.3	1374.1	1380.5	1372.0
157.5°	1393.3	1384.8	1394.4	1401.8	1393.3
160°	1412.5	1406.1	1412.5	1418.9	1411.4
162.5°	1429.6	1423.2	1428.5	1436.0	1426.4
165°	1444.5	1438.1	1441.3	1448.8	1441.3
167.5°	1456.3	1449.9	1453.1	1460.5	1450.9
170°	1465.9	1459.5	1461.6	1469.1	1459.5
172.5°	1472.3	1465.9	1468.0	1475.5	1465.9
175°	1477.6	1470.1	1472.3	1479.7	1469.1
177.5°	1479.7	1472.3	1473.3	1480.8	1471.2
180°	1474.4	1474.4	1474.4	1474.4	1474.4

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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	14.35	15.20	15.36	16.22	17.58	17.43	18.27	18.43	19.29	20.66
	3H	15.81	16.58	16.83	17.61	18.99	20.02	20.78	21.03	21.81	23.19
	4H	16.29	17.01	17.31	18.05	19.44	21.27	22.00	22.30	23.03	24.42
	6H	16.57	17.24	17.61	18.28	19.68	22.57	23.24	23.60	24.27	25.68
	8H	16.63	17.27	17.67	18.32	19.72	23.22	23.86	24.27	24.92	26.32
	12H	16.65	17.26	17.69	18.30	19.73	23.95	24.56	25.00	25.61	27.03
4H	2H	15.40	16.13	16.43	17.16	18.55	17.76	18.48	18.79	19.52	20.91
	3H	17.11	17.72	18.15	18.78	20.19	20.55	21.16	21.59	22.22	23.63
	4H	17.73	18.30	18.78	19.35	20.77	21.96	22.53	23.01	23.58	25.01
	6H	18.15	18.64	19.20	19.71	21.13	23.43	23.92	24.49	25.00	26.42
	8H	18.25	18.71	19.31	19.78	21.22	24.19	24.65	25.24	25.72	27.15
	12H	18.30	18.72	19.37	19.80	21.24	25.02	25.44	26.09	26.52	27.96
8H	4H	18.52	18.98	19.58	20.05	21.48	22.11	22.57	23.16	23.64	25.07
	6H	19.15	19.54	20.23	20.65	22.08	23.73	24.12	24.81	25.23	26.66
	8H	19.37	19.72	20.46	20.81	22.26	24.62	24.97	25.71	26.06	27.51
	12H	19.51	19.81	20.60	20.90	22.39	25.62	25.92	26.71	27.01	28.50
12H	4H	18.72	19.14	19.79	20.22	21.66	22.08	22.50	23.16	23.58	25.02
	6H	19.49	19.83	20.57	20.92	22.37	23.76	24.10	24.85	25.19	26.64
	8H	19.79	20.09	20.88	21.18	22.67	24.69	24.99	25.78	26.08	27.57