

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: P998691

Luminaire Tested: SA2XXDIP-B675D1080UB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998691
REPORT IS A COMBINATION OF REPORTS P984434 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D1080UB2750-4F0-XX-W2A-D_3500K
Description: Define 2 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

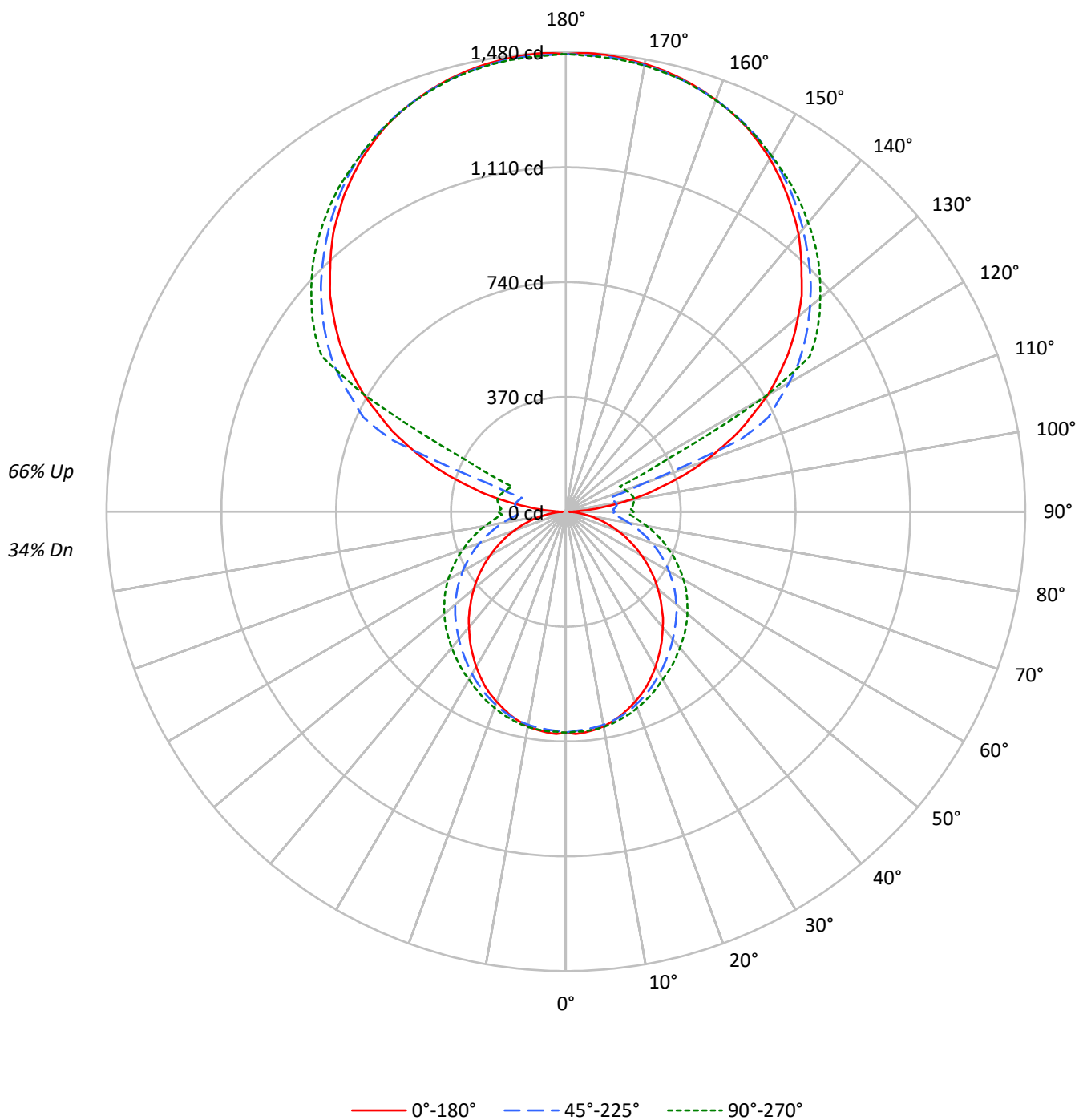
Lumens per Lamp: N/A
Luminaire Lumens: 7038.9 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 70.9
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				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10		0
RCR																					
0	103	103	103	103	93	93	93	93	75	75	75		57	57	57		42	42	42		34
1	93	89	84	81	84	80	76	73	64	61	59		49	47	46		35	34	33		27
2	84	77	70	65	76	69	64	59	55	51	48		42	40	37		30	29	27		22
3	77	67	60	54	69	61	54	49	48	44	40		37	34	31		27	24	23		18
4	70	59	51	45	63	53	46	41	43	38	34		33	29	26		24	21	19		15
5	64	52	44	38	57	47	40	35	38	33	29		29	25	22		21	19	16		13
6	59	47	39	33	53	42	35	30	34	29	25		26	22	19		19	16	14		11
7	54	42	34	28	49	38	31	26	31	25	22		24	20	17		17	15	13		10
8	50	38	30	25	45	34	28	23	28	23	19		22	18	15		16	13	11		9
9	47	35	27	22	42	31	25	20	25	20	17		20	16	13		15	12	10		8
10	44	32	24	20	39	29	22	18	23	18	15		18	15	12		13	11	9		7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11259	11259	11259
5°	11309	10779	10717
10°	11234	10404	10254
15°	11076	10019	9778
20°	10876	9614	9325
25°	10678	9225	8916
30°	10402	8831	8510
35°	10121	8451	8212
40°	9826	8121	7915
45°	9546	7823	7658
50°	9245	7548	7402
55°	8926	7255	7142
60°	8539	6952	6870
65°	8134	6603	6555
70°	7678	6226	6218
75°	7093	5851	5899
80°	6171	5460	5569
85°	5241	5092	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9546 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	1.0
10°-20°	193.4	2.7
20°-30°	293.0	4.2
30°-40°	356.8	5.1
40°-50°	383.9	5.5
50°-60°	372.8	5.3
60°-70°	325.6	4.6
70°-80°	250.6	3.6
80°-90°	170.4	2.4
90°-100°	164.4	2.3
100°-110°	265.8	3.8
110°-120°	536.5	7.6
120°-130°	828.3	11.8
130°-140°	859.9	12.2
140°-150°	789.2	11.2
150°-160°	632.7	9.0
160°-170°	407.7	5.8
170°-180°	140.3	2.0
0°-30°	553.8	7.9
0°-40°	910.7	12.9
0°-60°	1667.4	23.7
0°-90°	2414.0	34.3
90°-120°	966.7	13.7
90°-150°	3444.1	48.9
90°-180°	4625.0	65.7
0°-180°	7038.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	713	710	704	710	709	68
15°	680	682	682	692	691	192
25°	618	626	635	647	650	284
35°	533	550	570	593	600	333
45°	437	465	501	533	543	337
55°	335	372	426	463	476	300
65°	229	279	340	382	396	227
75°	127	184	250	295	308	134
85°	37	101	167	210	225	39
90°	11	83	157	204	218	11
95°	78	91	160	205	216	89
105°	330	391	154	202	217	352
115°	618	647	720	257	192	608
125°	870	883	936	972	984	776
135°	1074	1091	1111	1144	1150	830
145°	1245	1244	1262	1276	1276	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°	711.3	711.3	711.3	711.3	711.3
2.5°	716.4	713.3	706.1	711.3	709.2
5°	713.3	710.3	704.1	710.3	709.2
7.5°	708.2	706.1	701.0	708.2	707.2
10°	702.0	699.9	696.8	705.1	704.1
12.5°	691.7	692.7	690.7	698.9	697.9
15°	680.4	682.4	682.4	691.7	690.7
17.5°	665.9	670.0	673.1	682.4	682.4
20°	651.5	656.6	660.8	672.1	672.1
22.5°	636.0	642.2	648.4	659.7	661.8
25°	618.5	625.7	635.0	647.4	650.5
27.5°	597.9	609.2	619.5	635.0	637.1
30°	577.3	590.7	604.1	620.6	623.7
32.5°	554.6	570.1	586.5	606.1	612.3
35°	532.9	550.5	570.1	592.7	600.0
37.5°	509.2	528.8	553.6	578.3	585.5
40°	485.5	508.2	536.0	562.8	572.1
42.5°	462.8	485.5	518.5	548.4	557.7
45°	437.1	464.9	501.0	532.9	543.3
47.5°	412.3	442.2	483.5	516.5	527.8
50°	386.6	418.5	464.9	500.0	511.3
52.5°	361.8	395.8	445.3	481.4	493.8
55°	335.0	372.1	425.7	462.8	476.2
57.5°	309.3	350.5	404.1	444.3	457.7
60°	281.4	325.7	384.5	423.7	438.1
62.5°	256.7	303.1	361.8	404.1	417.5
65°	228.8	279.4	340.2	382.4	395.8
67.5°	204.1	256.7	318.5	360.8	375.2
70°	177.3	230.9	294.8	339.1	351.5
72.5°	152.6	208.2	273.2	316.5	331.9
75°	126.8	184.5	250.5	294.8	308.2
77.5°	102.1	161.8	228.8	273.2	287.6
80°	77.3	140.2	207.2	250.5	264.9
82.5°	56.7	118.5	186.6	229.9	243.3
85°	37.1	101.0	167.0	210.3	224.7
87.5°	22.7	84.5	150.5	192.8	206.2
90°	11.4	82.9	157.4	204.0	218.5
92.5°	36.0	86.3	152.4	194.7	208.2
95°	77.5	90.8	160.1	204.6	216.0
97.5°	132.0	88.8	165.7	207.1	220.5
100°	196.0	88.1	163.9	210.5	224.1
102.5°	265.4	297.3	158.8	207.7	222.2
105°	329.5	391.3	153.8	201.5	217.2
107.5°	405.3	456.6	148.6	195.4	211.0
110°	476.7	519.7	262.0	188.2	203.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	545.0	580.7	610.0	183.1	197.7
115°	617.5	647.1	720.1	257.1	191.6
117.5°	679.5	709.0	770.5	648.9	379.7
120°	749.9	770.0	830.4	872.1	739.5
122.5°	809.6	827.7	887.2	921.5	931.8
125°	869.5	883.3	936.5	971.9	984.4
127.5°	924.9	938.8	982.7	1019.0	1029.4
130°	977.2	993.2	1026.6	1063.0	1070.3
132.5°	1030.5	1043.3	1070.6	1103.9	1111.0
135°	1074.3	1091.3	1111.2	1143.6	1149.7
137.5°	1121.2	1134.0	1149.9	1180.1	1184.1
140°	1167.1	1174.6	1188.4	1214.5	1215.3
142.5°	1205.5	1211.9	1225.8	1246.8	1246.5
145°	1245.0	1244.0	1262.1	1275.8	1275.5
147.5°	1280.2	1277.0	1295.2	1301.5	1300.3
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	11.99	12.75	13.06	13.83	15.31	15.06	15.83	16.13	16.91	18.38
	3H	13.44	14.13	14.52	15.22	16.71	17.64	18.34	18.72	19.42	20.92
	4H	13.91	14.57	15.00	15.66	17.16	18.89	19.55	19.98	20.64	22.14
	6H	14.19	14.80	15.29	15.89	17.40	20.18	20.79	21.29	21.89	23.40
	8H	14.25	14.83	15.35	15.94	17.44	20.84	21.42	21.95	22.53	24.04
	12H	14.26	14.81	15.37	15.92	17.45	21.56	22.12	22.67	23.22	24.75
4H	2H	13.03	13.69	14.13	14.77	16.27	15.38	16.04	16.48	17.13	18.63
	3H	14.73	15.28	15.83	16.40	17.91	18.16	18.72	19.27	19.84	21.35
	4H	15.35	15.86	16.45	16.96	18.50	19.58	20.09	20.69	21.20	22.73
	6H	15.76	16.20	16.87	17.33	18.85	21.04	21.48	22.16	22.61	24.14
	8H	15.86	16.28	16.98	17.40	18.94	21.80	22.21	22.91	23.33	24.87
	12H	15.90	16.28	17.03	17.41	18.96	22.62	23.00	23.75	24.13	25.68
8H	4H	16.13	16.54	17.24	17.66	19.20	19.71	20.13	20.83	21.25	22.79
	6H	16.76	17.10	17.89	18.27	19.80	21.34	21.69	22.48	22.85	24.39
	8H	16.98	17.28	18.12	18.43	19.98	22.23	22.54	23.37	23.68	25.23
	12H	17.11	17.38	18.25	18.52	20.11	23.22	23.49	24.37	24.63	26.22
12H	4H	16.32	16.70	17.46	17.83	19.38	19.68	20.06	20.82	21.20	22.74
	6H	17.09	17.40	18.23	18.54	20.09	21.36	21.67	22.51	22.81	24.37
	8H	17.39	17.66	18.54	18.80	20.39	22.29	22.56	23.44	23.70	25.29