

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: P998697

Luminaire Tested: SA2XXDIP-B675D1080UB2750-4F0-XX-W2A-F_4000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998697
REPORT IS A COMBINATION OF REPORTS P984440 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-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

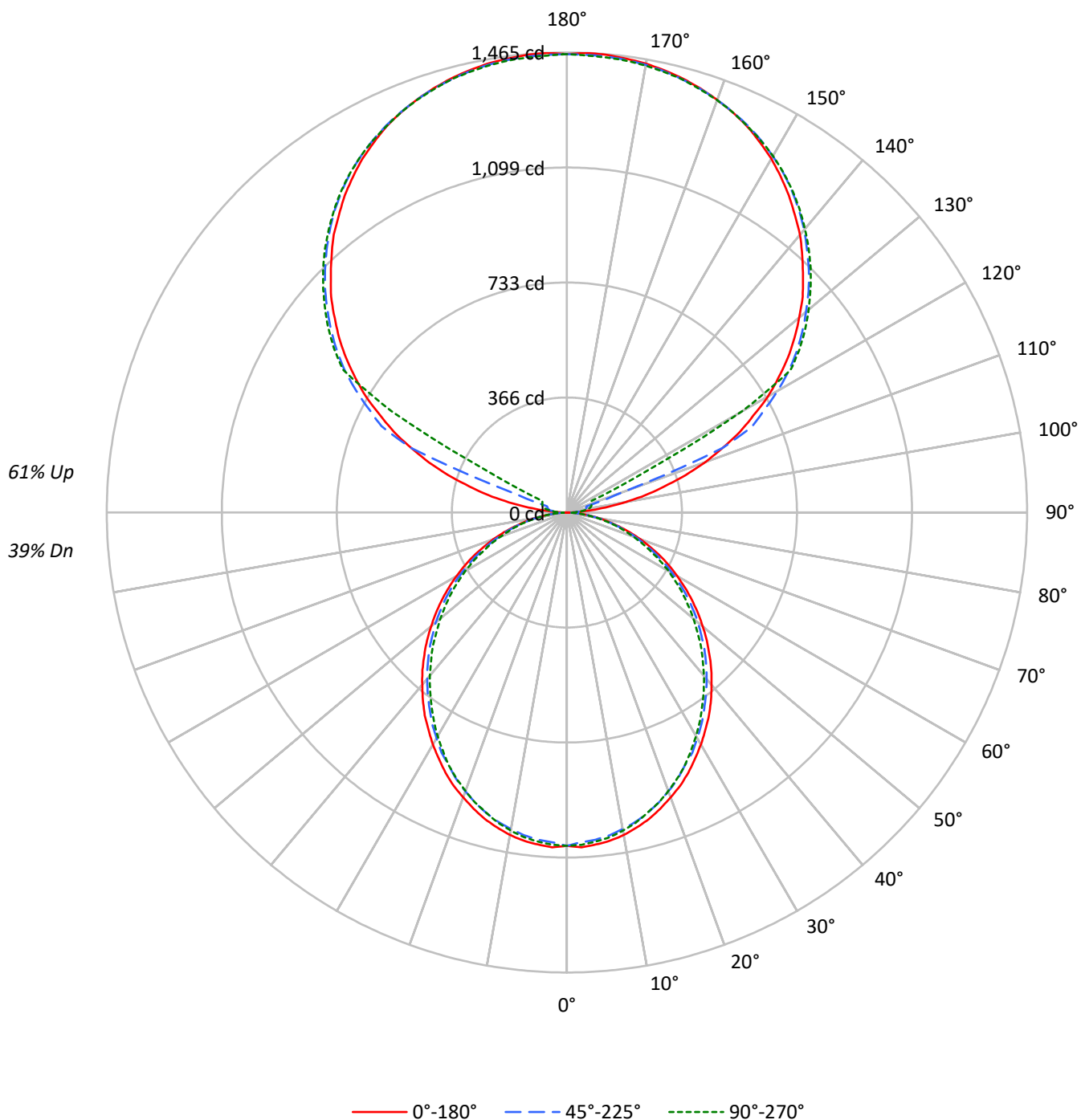
Lumens per Lamp: N/A
Luminaire Lumens: 6982.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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
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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46
1	95	91	87	84	86	83	80	77	67	65	63	53	52	51	40	39	39
2	87	79	73	68	79	72	67	63	59	55	52	47	44	42	36	34	33
3	79	70	63	57	72	64	57	52	52	48	44	41	38	36	32	29	28
4	72	62	54	48	65	56	50	44	46	41	37	37	33	31	28	26	24
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	23	21
6	61	49	41	36	55	45	38	33	37	32	28	30	26	23	23	20	18
7	56	44	37	31	51	41	34	29	34	28	25	27	23	20	21	18	16
8	52	40	33	27	47	37	30	25	31	25	22	25	21	18	19	17	15
9	49	37	29	24	44	34	27	23	28	23	19	23	19	16	18	15	13
10	45	34	26	22	41	31	25	20	26	21	17	21	17	15	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16800	16800	16800
5°	16827	16012	15899
10°	16689	15283	14979
15°	16445	14547	14012
20°	16114	13747	13096
25°	15785	12913	12182
30°	15371	12127	11222
35°	14981	11300	10279
40°	14497	10483	9388
45°	14019	9672	8515
50°	13494	8847	7608
55°	12942	7966	6749
60°	12323	7011	5857
65°	11646	6040	4917
70°	10783	4978	3972
75°	9588	3838	3066
80°	8143	2609	1974
85°	5905	1214	839

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14019 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	1.4
10°-20°	281.0	4.0
20°-30°	413.0	5.9
30°-40°	479.7	6.9
40°-50°	479.1	6.9
50°-60°	417.7	6.0
60°-70°	308.8	4.4
70°-80°	174.7	2.5
80°-90°	48.7	0.7
90°-100°	48.1	0.7
100°-110°	179.4	2.6
110°-120°	475.9	6.8
120°-130°	789.3	11.3
130°-140°	838.4	12.0
140°-150°	779.2	11.2
150°-160°	626.5	9.0
160°-170°	403.7	5.8
170°-180°	138.9	2.0
0°-30°	793.9	11.4
0°-40°	1273.6	18.2
0°-60°	2170.4	31.1
0°-90°	2702.6	38.7
90°-120°	703.5	10.1
90°-150°	3110.3	44.5
90°-180°	4279.0	61.3
0°-180°	6982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1061	1057	1046	1054	1052	101
15°	1010	1004	991	995	990	285
25°	914	906	889	891	889	421
35°	789	779	762	756	751	493
45°	642	635	619	608	604	495
55°	486	480	467	455	450	434
65°	328	321	311	302	297	324
75°	171	169	164	158	160	183
85°	42	41	40	37	36	47
90°	1	13	21	26	28	6
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°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1067.4	1062.3	1051.0	1061.3	1059.2
5°	1061.3	1057.2	1045.9	1054.1	1052.1
7.5°	1054.1	1048.0	1036.8	1044.9	1042.9
10°	1042.9	1035.7	1023.5	1031.7	1028.6
12.5°	1027.6	1021.5	1009.2	1014.3	1012.3
15°	1010.2	1004.1	990.8	994.9	989.8
17.5°	988.8	982.7	969.4	974.5	969.4
20°	965.3	959.2	944.9	948.0	943.9
22.5°	941.9	932.7	919.4	919.4	917.4
25°	914.3	906.1	888.8	890.8	888.8
27.5°	883.7	876.6	863.3	860.2	855.1
30°	853.1	844.9	829.6	826.6	822.5
32.5°	820.4	814.3	798.0	791.9	787.8
35°	788.8	778.6	762.3	756.1	751.0
37.5°	753.1	743.9	727.6	720.4	715.3
40°	716.3	708.2	691.9	682.7	678.6
42.5°	680.6	672.5	656.1	645.9	639.8
45°	641.9	634.7	619.4	608.2	604.1
47.5°	604.1	597.0	580.6	569.4	563.3
50°	564.3	559.2	544.9	530.6	525.5
52.5°	525.5	518.4	505.1	493.9	486.7
55°	485.7	479.6	467.4	455.1	450.0
57.5°	445.9	440.8	427.6	415.3	411.2
60°	406.1	402.1	387.8	376.5	373.5
62.5°	367.4	360.2	350.0	339.8	335.7
65°	327.6	321.4	311.2	302.0	296.9
67.5°	286.7	281.6	272.5	265.3	261.2
70°	249.0	244.9	235.7	228.6	224.5
72.5°	210.2	206.1	201.0	193.9	190.8
75°	171.4	169.4	164.3	158.2	160.2
77.5°	136.7	132.7	130.6	127.6	124.5
80°	102.0	101.0	99.0	95.9	93.9
82.5°	69.4	69.4	68.4	64.3	64.3
85°	41.8	40.8	39.8	36.7	35.7
87.5°	18.4	16.3	14.3	11.2	10.2
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	13.89	14.66	14.94	15.72	17.14	14.68	15.44	15.72	16.50	17.92
	3H	15.23	15.91	16.28	16.98	18.42	16.30	16.98	17.35	18.05	19.49
	4H	15.63	16.28	16.70	17.34	18.79	16.88	17.54	17.95	18.60	20.05
	6H	15.84	16.44	16.92	17.51	18.97	17.28	17.88	18.36	18.95	20.41
	8H	15.87	16.44	16.95	17.52	18.98	17.39	17.96	18.47	19.04	20.50
	12H	15.86	16.40	16.94	17.48	18.96	17.43	17.97	18.52	19.05	20.53
4H	2H	14.35	15.00	15.43	16.07	17.52	15.00	15.65	16.07	16.71	18.16
	3H	15.86	16.41	16.94	17.50	18.96	16.77	17.31	17.85	18.40	19.87
	4H	16.36	16.86	17.45	17.94	19.43	17.44	17.94	18.53	19.03	20.51
	6H	16.66	17.09	17.76	18.19	19.67	17.94	18.36	19.03	19.47	20.95
	8H	16.72	17.12	17.81	18.21	19.71	18.08	18.48	19.17	19.57	21.07
	12H	16.71	17.07	17.83	18.18	19.68	18.13	18.50	19.25	19.61	21.10
8H	4H	16.53	16.93	17.63	18.03	19.52	17.52	17.92	18.62	19.02	20.51
	6H	16.91	17.24	18.03	18.38	19.87	18.09	18.42	19.21	19.56	21.05
	8H	17.01	17.30	18.14	18.42	19.93	18.28	18.57	19.40	19.69	21.20
	12H	17.04	17.29	18.17	18.41	19.96	18.37	18.63	19.50	19.74	21.29
12H	4H	16.51	16.87	17.62	17.98	19.48	17.48	17.85	18.60	18.96	20.45
	6H	16.93	17.22	18.05	18.34	19.85	18.08	18.37	19.21	19.49	21.00
	8H	17.04	17.29	18.17	18.41	19.95	18.27	18.53	19.40	19.64	21.19