

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: P998683

Luminaire Tested: SA2XXDIP-B675D1080UB27-4F0-XX-W2A-F4

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998683
REPORT IS A COMBINATION OF REPORTS P984426 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D1080UB27-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

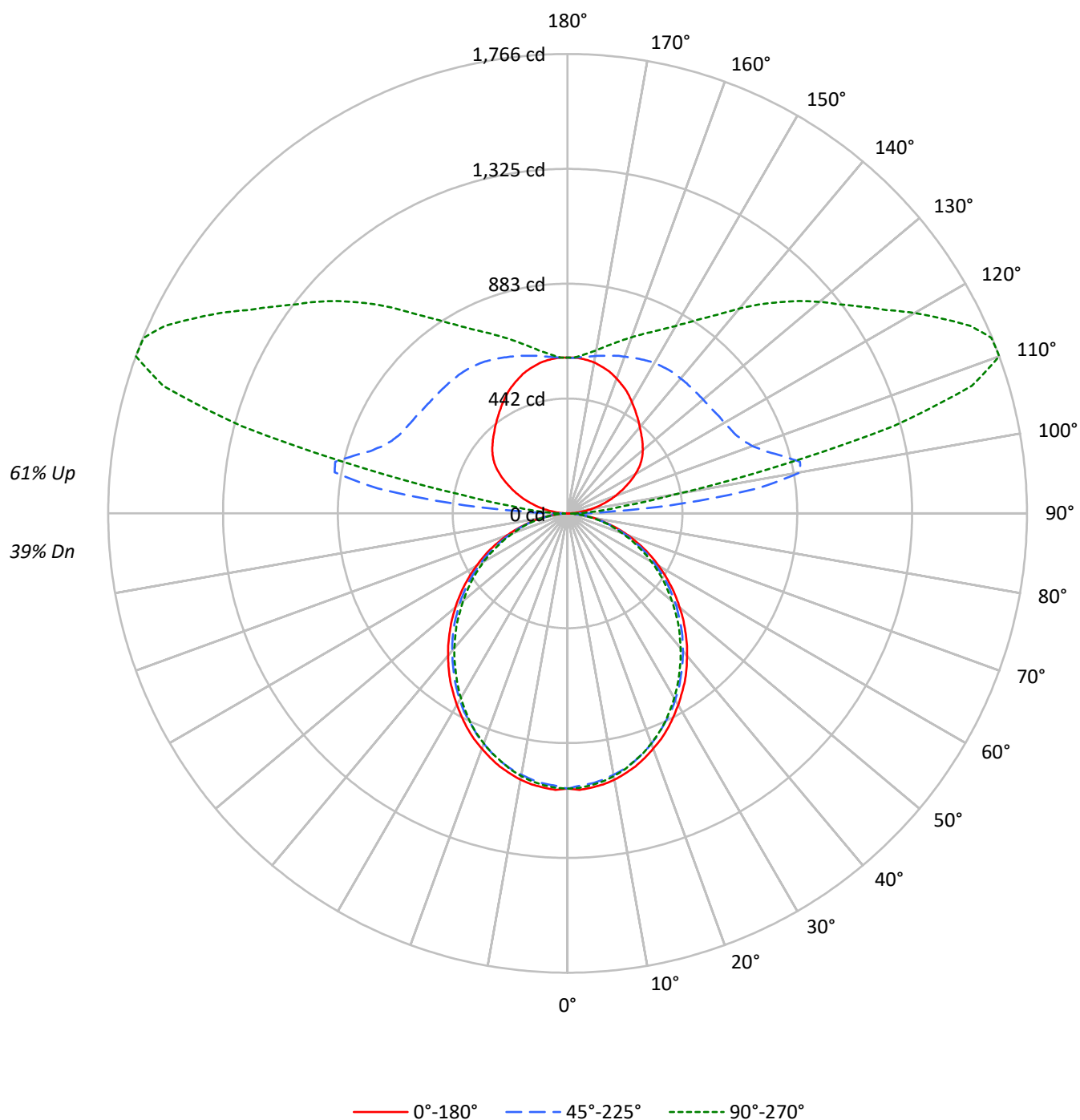
Lumens per Lamp: N/A
Luminaire Lumens: 6868.8 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46
1	95	91	87	84	87	83	80	77	68	65	63	54	52	51	41	40	39
2	87	80	74	68	79	73	67	63	59	56	52	47	45	42	36	34	33
3	79	70	63	57	72	64	58	53	52	48	44	42	39	36	32	30	28
4	72	62	54	48	66	56	50	45	46	41	38	37	34	31	28	26	24
5	66	55	47	41	60	50	43	38	42	36	32	33	30	27	26	23	21
6	61	49	41	36	55	45	38	33	37	32	28	30	26	23	23	21	18
7	56	44	37	31	51	41	34	29	34	29	25	27	23	21	21	18	16
8	52	40	33	27	47	37	30	26	31	26	22	25	21	18	19	17	15
9	49	37	29	24	44	34	27	23	28	23	20	23	19	16	18	15	13
10	45	34	26	22	41	31	25	20	26	21	18	21	17	15	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16749	16749	16749
5°	16776	15964	15853
10°	16640	15238	14936
15°	16396	14504	13971
20°	16067	13707	13057
25°	15738	12875	12146
30°	15326	12092	11188
35°	14937	11266	10249
40°	14455	10451	9361
45°	13978	9644	8489
50°	13454	8821	7586
55°	12905	7942	6730
60°	12287	6990	5840
65°	11610	6022	4904
70°	10749	4963	3959
75°	9560	3826	3057
80°	8119	2601	1968
85°	5890	1211	837

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13978 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	1.4
10°-20°	280.2	4.1
20°-30°	411.8	6.0
30°-40°	478.3	7.0
40°-50°	477.7	7.0
50°-60°	416.5	6.1
60°-70°	307.9	4.5
70°-80°	174.2	2.5
80°-90°	49.8	0.7
90°-100°	242.6	3.5
100°-110°	820.3	11.9
110°-120°	862.2	12.6
120°-130°	709.0	10.3
130°-140°	569.7	8.3
140°-150°	430.4	6.3
150°-160°	302.6	4.4
160°-170°	178.2	2.6
170°-180°	58.0	0.8
0°-30°	791.6	11.5
0°-40°	1269.8	18.5
0°-60°	2164.0	31.5
0°-90°	2695.8	39.2
90°-120°	1925.1	28.0
90°-150°	3634.3	52.9
90°-180°	4173.0	60.8
0°-180°	6868.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1058	1054	1043	1051	1049	100
15°	1007	1001	988	992	987	284
25°	912	904	886	888	886	419
35°	786	776	760	754	749	491
45°	640	633	618	606	602	494
55°	484	478	466	454	449	433
65°	327	320	310	301	296	323
75°	171	169	164	158	160	182
85°	42	41	40	37	36	46
90°	1	16	39	37	38	5
95°	40	99	451	170	131	42
105°	140	212	853	1524	1297	149
115°	248	312	714	1473	1707	245
125°	345	409	686	1193	1385	307
135°	405	483	678	1003	1148	313
145°	463	532	674	837	916	290
155°	526	568	655	741	770	242
165°	573	590	627	665	676	162
175°	597	598	603	611	609	57
180°	598	598	598	598	598	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1058.1	1058.1	1058.1	1058.1	1058.1
2.5°	1064.2	1059.1	1047.9	1058.1	1056.1
5°	1058.1	1054.0	1042.8	1051.0	1049.0
7.5°	1051.0	1044.9	1033.7	1041.8	1039.8
10°	1039.8	1032.7	1020.5	1028.6	1025.6
12.5°	1024.5	1018.4	1006.2	1011.3	1009.3
15°	1007.2	1001.1	987.9	992.0	986.9
17.5°	985.9	979.8	966.5	971.6	966.5
20°	962.5	956.4	942.1	945.2	941.1
22.5°	939.1	929.9	916.7	916.7	914.7
25°	911.6	903.5	886.2	888.2	886.2
27.5°	881.1	874.0	860.7	857.7	852.6
30°	850.6	842.4	827.2	824.1	820.0
32.5°	818.0	811.9	795.6	789.5	785.4
35°	786.5	776.3	760.0	753.9	748.8
37.5°	750.9	741.7	725.4	718.3	713.2
40°	714.2	706.1	689.8	680.6	676.6
42.5°	678.6	670.5	654.2	644.0	637.9
45°	640.0	632.8	617.6	606.4	602.3
47.5°	602.3	595.2	578.9	567.7	561.6
50°	562.6	557.5	543.3	529.1	524.0
52.5°	524.0	516.8	503.6	492.4	485.3
55°	484.3	478.2	466.0	453.8	448.7
57.5°	444.6	439.5	426.3	414.1	410.0
60°	404.9	400.9	386.6	375.4	372.4
62.5°	366.3	359.1	349.0	338.8	334.7
65°	326.6	320.5	310.3	301.2	296.1
67.5°	285.9	280.8	271.6	264.5	260.5
70°	248.2	244.2	235.0	227.9	223.8
72.5°	209.6	205.5	200.4	193.3	190.3
75°	170.9	168.9	163.8	157.7	159.7
77.5°	136.3	132.3	130.2	127.2	124.1
80°	101.7	100.7	98.7	95.6	93.6
82.5°	69.2	69.2	68.2	64.1	64.1
85°	41.7	40.7	39.7	36.6	35.6
87.5°	18.3	16.3	14.2	11.2	10.2
90°	1.2	15.6	39.1	37.4	38.0
92.5°	17.3	54.6	177.3	81.7	70.2
95°	40.3	99.0	451.2	170.4	131.2
97.5°	59.9	130.6	735.5	341.8	219.8
100°	88.6	160.0	909.3	680.8	412.1
102.5°	115.1	186.4	915.1	1151.0	803.4
105°	140.4	211.8	852.9	1524.5	1297.2
107.5°	168.0	237.1	795.3	1659.8	1629.8
110°	195.7	263.0	756.2	1637.9	1765.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	221.0	287.8	730.9	1563.6	1763.4
115°	247.5	312.5	713.6	1472.7	1707.0
117.5°	275.1	337.2	704.4	1385.8	1621.8
120°	300.4	361.4	696.4	1308.2	1540.1
122.5°	324.6	386.2	691.8	1247.7	1454.9
125°	345.3	408.6	686.0	1193.1	1384.7
127.5°	362.6	429.9	682.6	1146.4	1319.1
130°	377.5	448.9	680.2	1099.2	1265.0
132.5°	391.3	467.3	679.1	1050.3	1208.6
135°	405.2	483.4	677.9	1002.6	1147.6
137.5°	417.8	497.2	677.9	954.2	1088.9
140°	432.8	509.9	676.8	911.6	1027.9
142.5°	447.7	520.2	676.8	870.8	966.9
145°	462.7	531.8	674.5	837.4	916.2
147.5°	478.8	541.0	671.0	808.0	871.3
150°	494.9	550.2	667.6	782.6	832.2
152.5°	511.0	559.4	661.8	761.4	798.8
155°	526.0	568.0	654.9	740.6	770.0
157.5°	538.7	574.9	648.0	721.1	744.7
160°	551.3	581.8	641.1	701.6	720.5
162.5°	564.0	587.0	635.4	683.1	697.5
165°	573.2	590.4	627.3	665.3	675.6
167.5°	581.3	593.9	620.4	649.2	654.9
170°	589.3	595.6	614.6	634.2	636.5
172.5°	593.9	597.4	607.7	621.0	621.5
175°	597.4	598.0	603.1	610.6	608.9
177.5°	599.7	598.5	598.5	603.1	599.7
180°	598.5	598.5	598.5	598.5	598.5

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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	13.94	14.72	14.99	15.76	17.18	14.72	15.50	15.77	16.55	17.96
	3H	15.27	15.97	16.33	17.02	18.46	16.34	17.04	17.40	18.09	19.53
	4H	15.67	16.33	16.74	17.39	18.83	16.93	17.59	18.00	18.65	20.09
	6H	15.89	16.49	16.96	17.56	19.01	17.33	17.93	18.41	19.00	20.45
	8H	15.92	16.49	17.00	17.57	19.02	17.44	18.01	18.52	19.09	20.54
	12H	15.90	16.45	16.99	17.53	19.00	17.48	18.02	18.56	19.10	20.57
4H	2H	14.40	15.06	15.47	16.12	17.56	15.04	15.70	16.12	16.76	18.20
	3H	15.91	16.46	16.99	17.55	19.00	16.82	17.36	17.90	18.45	19.91
	4H	16.41	16.91	17.50	17.99	19.47	17.49	18.00	18.58	19.07	20.55
	6H	16.71	17.14	17.80	18.24	19.71	17.98	18.42	19.08	19.52	20.99
	8H	16.76	17.17	17.86	18.26	19.75	18.13	18.53	19.22	19.62	21.11
	12H	16.76	17.13	17.87	18.23	19.72	18.18	18.55	19.29	19.65	21.15
8H	4H	16.58	16.98	17.67	18.08	19.56	17.57	17.98	18.67	19.07	20.56
	6H	16.96	17.29	18.08	18.43	19.91	18.14	18.47	19.25	19.61	21.09
	8H	17.06	17.35	18.18	18.47	19.97	18.33	18.62	19.45	19.73	21.24
	12H	17.09	17.35	18.22	18.46	20.00	18.42	18.68	19.55	19.79	21.33
12H	4H	16.56	16.92	17.67	18.03	19.52	17.53	17.90	18.64	19.00	20.50
	6H	16.98	17.27	18.10	18.39	19.89	18.13	18.42	19.25	19.54	21.04
	8H	17.09	17.34	18.21	18.46	20.00	18.32	18.58	19.45	19.69	21.23