

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: P645086

Luminaire Tested: OMN4DIP-SR4F0-75D150U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645086
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D150U830-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

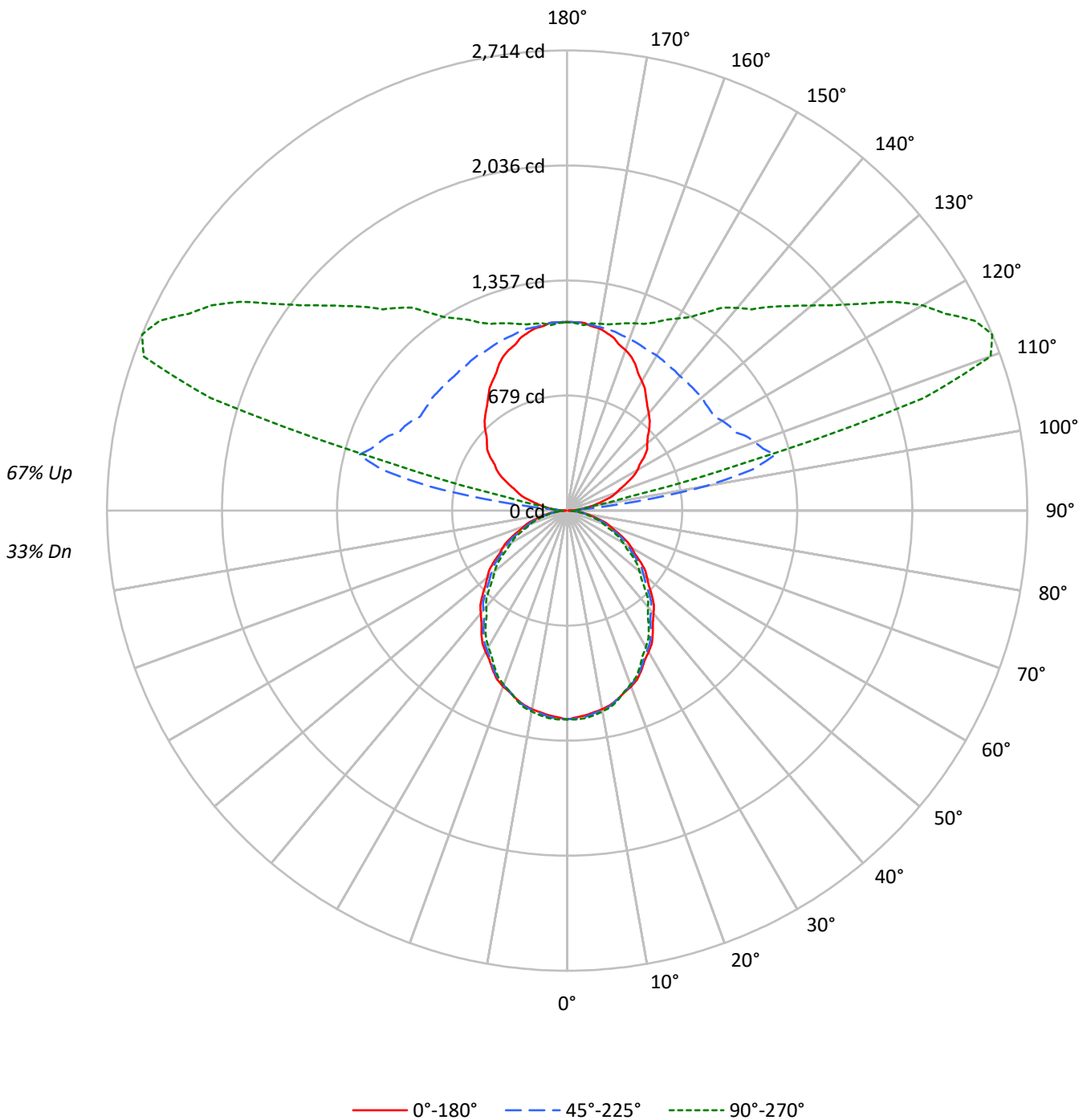
Lumens per Lamp: N/A
Luminaire Lumens: 8979.9 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
Input Voltage (V): 120
Input Current (A_{in}): 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	50	30	10	0
RCR																					
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33			33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28			28
2	86	79	73	68	77	71	66	62	57	53	50	44	42	39	32	30	29	24			24
3	78	69	62	56	70	62	56	52	50	46	42	39	36	33	28	26	25	20			20
4	71	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	21	17			17
5	66	54	46	41	59	49	43	37	40	35	31	31	28	25	23	21	19	15			15
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13			13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15	12			12
8	52	40	32	27	46	36	30	25	30	25	21	23	20	17	17	15	13	11			11
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10			10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9			9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19882	19882	19882
5°	19658	19794	19930
10°	19502	19584	19721
15°	19239	19239	19351
20°	18969	18826	18768
25°	18474	18326	18088
30°	17928	17678	17335
35°	17369	16939	16543
40°	16701	16208	15643
45°	16143	15531	14767
50°	15443	14770	14014
55°	14854	14100	13253
60°	14173	13417	12281
65°	13440	12481	11522
70°	12732	11547	10754
75°	11915	10555	10031
80°	10907	9661	9186
85°	10244	9003	8373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16143 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.8	1.3
10°-20°	325.1	3.6
20°-30°	472.6	5.3
30°-40°	537.6	6.0
40°-50°	524.2	5.8
50°-60°	447.4	5.0
60°-70°	325.2	3.6
70°-80°	183.9	2.0
80°-90°	59.1	0.7
90°-100°	143.9	1.6
100°-110°	978.3	10.9
110°-120°	1325.2	14.8
120°-130°	1078.0	12.0
130°-140°	866.0	9.6
140°-150°	682.6	7.6
150°-160°	499.1	5.6
160°-170°	310.0	3.5
170°-180°	105.7	1.2
0°-30°	913.5	10.2
0°-40°	1451.1	16.2
0°-60°	2422.8	27.0
0°-90°	2990.9	33.3
90°-120°	2447.4	27.3
90°-150°	5074.1	56.5
90°-180°	5989.0	66.7
0°-180°	8979.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1213	1231	1221	1220	1230	115
15°	1151	1166	1151	1150	1158	324
25°	1037	1047	1029	1010	1015	477
35°	881	884	859	839	839	550
45°	707	704	680	656	647	544
55°	528	526	501	477	471	471
65°	352	348	327	306	302	349
75°	191	184	169	162	161	203
85°	55	49	49	47	45	59
90°	7	15	24	29	29	9
95°	69	111	61	68	80	73
105°	225	338	1269	1619	1070	238
115°	390	470	1093	2268	2651	388
125°	556	631	1030	1798	2126	494
135°	685	761	1035	1481	1700	528
145°	811	880	1042	1290	1427	510
155°	951	985	1063	1169	1224	437
165°	1056	1070	1091	1120	1140	297
175°	1112	1119	1112	1105	1098	105
180°	1112	1112	1112	1112	1112	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1231.4	1231.4	1231.4	1231.4	1231.4
2.5°	1220.6	1236.4	1227.3	1227.5	1232.7
5°	1212.9	1231.0	1221.3	1219.9	1229.7
7.5°	1200.2	1217.9	1206.6	1204.9	1217.6
10°	1189.5	1205.9	1194.5	1191.4	1202.9
12.5°	1174.7	1191.1	1179.8	1175.3	1186.8
15°	1151.0	1165.7	1151.0	1149.5	1157.7
17.5°	1124.1	1136.9	1119.8	1114.2	1120.5
20°	1104.0	1115.5	1095.7	1087.4	1092.3
22.5°	1078.6	1090.0	1068.9	1056.6	1062.8
25°	1037.0	1046.9	1028.7	1010.3	1015.3
27.5°	992.5	1000.0	981.7	963.0	964.7
30°	961.6	966.6	948.2	928.2	929.8
32.5°	929.5	933.1	913.4	892.0	892.3
35°	881.2	884.5	859.4	839.3	839.3
37.5°	830.0	831.9	805.2	783.3	781.0
40°	792.4	795.7	769.0	747.1	742.2
42.5°	757.6	758.2	734.1	712.2	706.0
45°	707.0	703.7	680.2	656.5	646.7
47.5°	652.4	652.4	625.6	601.9	592.7
50°	614.8	614.8	588.0	564.4	557.9
52.5°	580.0	578.7	553.2	529.5	520.4
55°	527.7	526.1	500.9	477.3	470.8
57.5°	472.4	472.4	449.0	423.7	416.5
60°	438.9	438.9	415.5	390.1	380.3
62.5°	402.8	401.4	378.0	355.4	349.5
65°	351.8	348.5	326.7	306.5	301.6
67.5°	303.2	300.0	276.8	260.6	257.3
70°	269.7	266.5	244.6	231.1	227.8
72.5°	237.6	233.0	213.8	203.0	199.7
75°	191.0	184.4	169.2	162.5	160.8
77.5°	146.8	135.6	129.3	124.6	123.0
80°	117.3	107.4	103.9	100.5	98.8
82.5°	91.8	82.0	81.1	79.0	77.4
85°	55.3	48.7	48.6	46.9	45.2
87.5°	24.1	21.9	23.6	24.6	24.6
90°	6.7	15.2	24.0	29.4	29.4
92.5°	28.8	32.1	38.1	50.5	54.7
95°	69.4	110.7	61.0	68.2	80.3
97.5°	111.0	206.0	416.0	124.3	106.6
100°	144.6	256.0	828.7	244.6	162.5
102.5°	176.9	293.7	1119.6	642.7	351.4
105°	225.2	338.2	1269.3	1618.9	1070.1
107.5°	275.2	359.8	1212.0	2355.3	2204.6
110°	307.5	387.9	1178.4	2474.8	2657.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	341.0	421.5	1144.8	2404.9	2713.8
115°	389.7	470.1	1092.8	2267.9	2650.8
117.5°	441.5	520.5	1080.2	2121.2	2515.2
120°	480.6	554.2	1057.8	2009.7	2420.0
122.5°	507.3	587.6	1029.8	1913.8	2291.3
125°	555.9	631.1	1029.8	1798.0	2126.3
127.5°	594.8	672.7	1031.2	1663.6	1987.8
130°	617.2	699.2	1036.8	1573.7	1881.5
132.5°	643.8	725.9	1035.5	1533.3	1786.3
135°	685.4	760.7	1035.2	1480.8	1699.6
137.5°	720.4	801.1	1035.2	1422.7	1610.1
140°	748.4	823.6	1035.2	1388.8	1559.7
142.5°	776.4	846.1	1040.8	1349.3	1509.4
145°	811.3	879.7	1042.2	1290.1	1426.8
147.5°	853.3	913.5	1050.5	1247.4	1352.7
150°	881.3	936.0	1056.1	1219.0	1307.9
152.5°	909.3	958.5	1056.1	1196.3	1268.8
155°	951.2	985.4	1063.1	1169.3	1224.0
157.5°	984.8	1017.6	1071.5	1152.2	1191.8
160°	1007.2	1034.5	1077.1	1140.8	1175.0
162.5°	1024.0	1051.3	1082.7	1135.0	1158.3
165°	1056.1	1069.8	1091.1	1119.6	1140.1
167.5°	1074.3	1086.6	1098.1	1112.4	1124.7
170°	1091.1	1098.0	1098.1	1112.3	1119.1
172.5°	1096.7	1109.0	1103.7	1106.7	1113.5
175°	1112.1	1118.9	1112.1	1104.9	1098.1
177.5°	1112.1	1117.6	1112.1	1112.0	1106.5
180°	1112.1	1112.1	1112.1	1112.1	1112.1

(END OF REPORT)