

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: P645026

Luminaire Tested: OMN4DIP-SR4F0-75D100U830-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645026
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-SR4F0-75D100U830-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

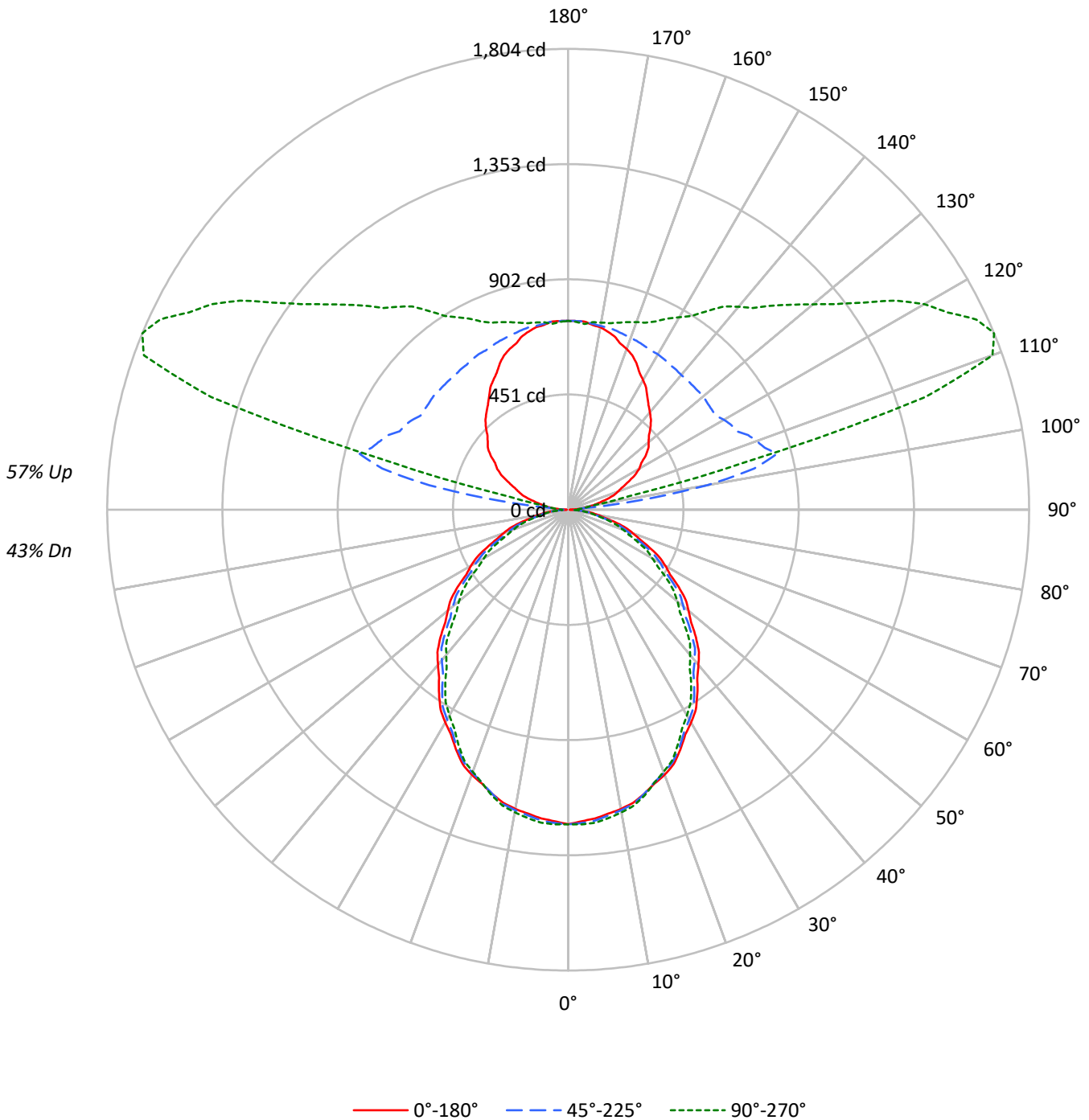
Lumens per Lamp: N/A
Luminaire Lumens: 6976.6 lumens
Efficiency: N/A
Efficacy: 137.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.8
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	
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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43				
1	96	92	88	85	88	84	81	78	70	67	65	56	55	53	44	43	42	36				
2	88	80	74	69	80	74	68	64	61	57	54	49	47	45	39	37	35	30				
3	80	71	64	58	73	65	59	54	54	49	46	44	41	38	34	32	30	26				
4	73	63	55	49	67	58	51	46	48	43	39	39	35	32	31	28	26	22				
5	67	56	48	42	61	51	44	39	43	38	34	35	31	28	28	25	23	19				
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	25	22	20	17				
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15				
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	14				
9	49	37	30	25	45	35	28	24	29	24	20	24	20	18	20	17	15	12				
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11				

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	1.7
10°-20°	325.1	4.7
20°-30°	472.6	6.8
30°-40°	537.6	7.7
40°-50°	524.2	7.5
50°-60°	447.4	6.4
60°-70°	325.2	4.7
70°-80°	183.9	2.6
80°-90°	58.3	0.8
90°-100°	98.0	1.4
100°-110°	651.7	9.3
110°-120°	881.8	12.6
120°-130°	717.1	10.3
130°-140°	575.8	8.3
140°-150°	453.8	6.5
150°-160°	331.8	4.8
160°-170°	206.1	3.0
170°-180°	70.3	1.0
0°-30°	913.5	13.1
0°-40°	1451.1	20.8
0°-60°	2422.8	34.7
0°-90°	2990.1	42.9
90°-120°	1631.6	23.4
90°-150°	3378.3	48.4
90°-180°	3987.0	57.1
0°-180°	6976.6	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	13	19	22	22	8
95°	51	76	42	47	54	52
105°	152	226	845	1077	711	162
115°	261	314	727	1508	1762	260
125°	371	421	685	1195	1414	329
135°	456	506	688	984	1130	351
145°	539	585	693	858	949	339
155°	632	655	707	777	814	290
165°	702	711	725	744	758	197
175°	739	744	739	735	730	70
180°	739	739	739	739	739	



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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	21.4	22.6	23.2	23.2
90°	6.7	12.9	19.4	22.3	22.3
92.5°	23.2	24.2	27.8	35.9	38.2
95°	50.6	75.9	42.2	47.0	54.5
97.5°	77.8	139.2	278.1	83.6	71.4
100°	100.1	172.5	552.0	163.2	108.6
102.5°	121.1	197.1	745.5	427.8	233.8
105°	152.5	226.5	845.0	1076.8	711.4
107.5°	185.7	240.9	806.8	1566.4	1465.6
110°	206.6	259.6	784.5	1645.8	1766.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	229.0	281.9	762.2	1599.4	1804.1
115°	260.8	313.7	727.0	1507.7	1762.3
117.5°	295.2	347.2	718.7	1410.2	1672.1
120°	321.2	369.6	703.8	1336.0	1608.8
122.5°	338.5	391.8	685.2	1272.3	1523.3
125°	370.7	420.7	685.2	1195.3	1413.5
127.5°	396.0	448.2	686.1	1106.0	1321.5
130°	410.9	465.4	689.8	1046.2	1250.8
132.5°	428.1	482.7	688.5	1019.3	1187.6
135°	455.7	505.7	688.2	984.4	1129.9
137.5°	478.9	532.6	688.2	945.8	1070.4
140°	497.5	547.5	688.2	923.2	1036.9
142.5°	516.1	562.5	691.9	897.0	1003.4
145°	539.4	584.8	692.8	857.6	948.6
147.5°	567.3	607.3	698.4	829.3	899.3
150°	585.9	622.3	702.1	810.4	869.5
152.5°	604.5	637.2	702.1	795.3	843.5
155°	632.4	655.1	706.8	777.3	813.7
157.5°	654.7	676.5	712.4	766.0	792.3
160°	669.6	687.8	716.1	758.4	781.2
162.5°	680.7	698.9	719.8	754.6	770.0
165°	702.1	711.2	725.4	744.3	757.9
167.5°	714.2	722.4	730.0	739.5	747.7
170°	725.4	729.9	730.0	739.4	744.0
172.5°	729.1	737.3	733.7	735.7	740.3
175°	739.3	743.9	739.3	734.6	730.0
177.5°	739.3	743.0	739.3	739.2	735.6
180°	739.3	739.3	739.3	739.3	739.3

(END OF REPORT)