

Signify Classified - Internal
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: P644190

Luminaire Tested: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644190
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

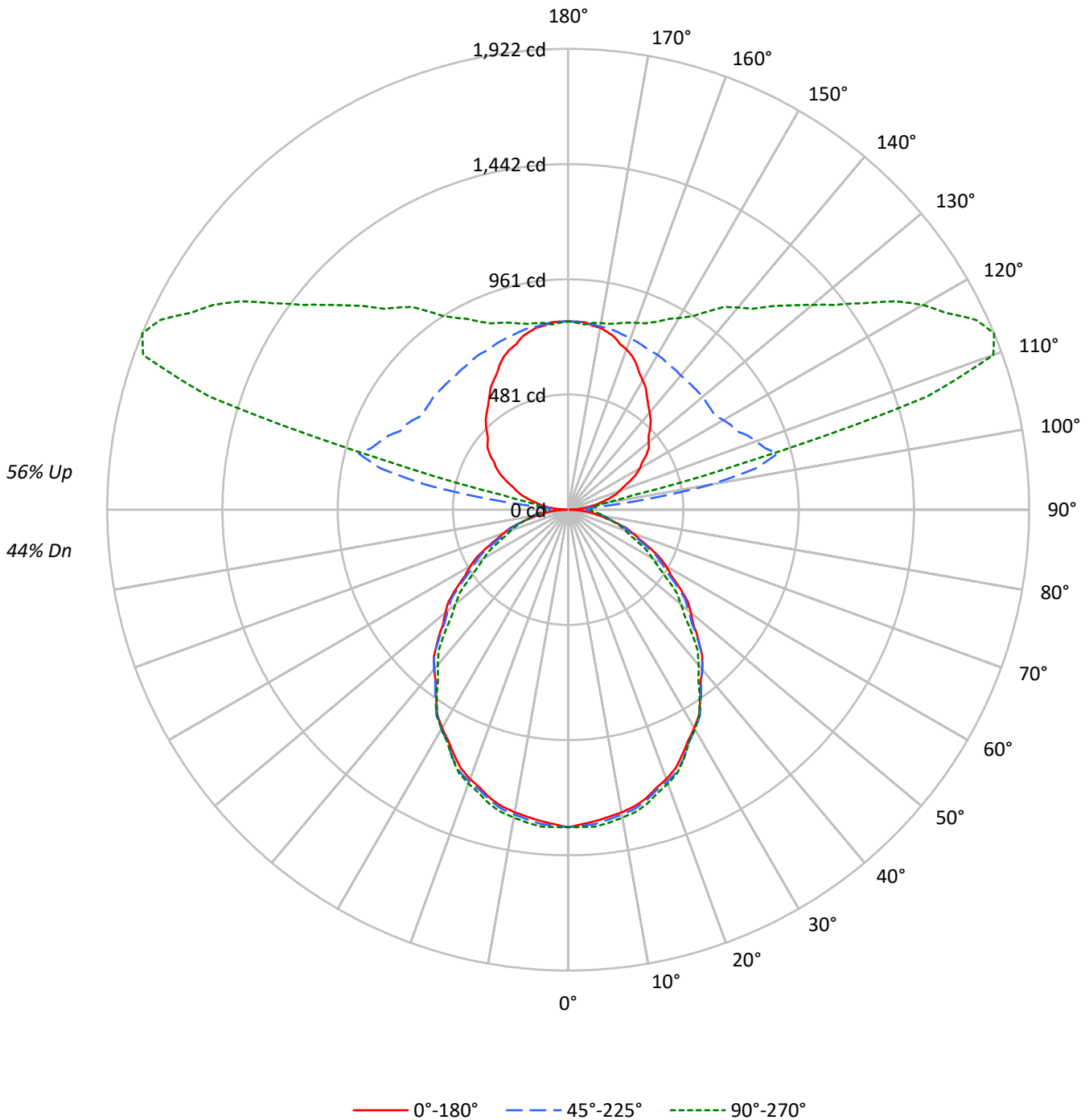
Lumens per Lamp: N/A
Luminaire Lumens: 7633.4 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 68.1
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

TEST NUMBER: P644190

CATALOG NUMBER: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644190

CATALOG NUMBER: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW

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	0
RCR																				
0	106	106	106	106	97	97	97	97	80	80	80		65	65	65		51	51	51	44
1	96	92	88	84	88	84	81	78	70	67	65		57	55	53		44	43	42	37
2	88	80	74	69	80	74	68	64	61	57	54		50	47	45		39	37	36	31
3	80	71	63	58	73	65	59	53	54	49	46		44	41	38		35	32	30	26
4	73	63	55	49	67	58	51	45	48	43	39		39	36	33		31	28	26	23
5	67	56	48	42	61	51	44	39	43	38	34		35	31	28		28	25	23	20
6	62	50	42	36	56	46	39	34	39	33	29		32	28	25		26	23	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	49	38	31	26	32	27	23		27	23	20		21	18	16	14
9	49	37	30	25	45	35	28	23	29	24	20		24	20	18		20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18		23	19	16		18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21385	21385	21385
5°	20980	18881	18295
10°	20704	16799	15804
15°	20402	15043	13824
20°	19935	13496	12092
25°	19313	12051	10536
30°	18700	10648	9145
35°	17873	9366	7849
40°	17099	8199	6655
45°	16206	7046	5553
50°	15259	5968	4555
55°	14258	5022	3673
60°	13302	4116	2936
65°	12125	3282	2324
70°	10994	2572	1835
75°	9612	1976	1448
80°	8031	1469	1128
85°	5854	1069	857

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16206 cd/sqm



TEST NUMBER: P644190

CATALOG NUMBER: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.6
10°-20°	354.7	4.6
20°-30°	523.7	6.9
30°-40°	602.1	7.9
40°-50°	584.0	7.7
50°-60°	488.9	6.4
60°-70°	352.2	4.6
70°-80°	215.2	2.8
80°-90°	106.3	1.4
90°-100°	137.9	1.8
100°-110°	702.8	9.2
110°-120°	939.0	12.3
120°-130°	762.2	10.0
130°-140°	611.5	8.0
140°-150°	481.9	6.3
150°-160°	352.4	4.6
160°-170°	218.9	2.9
170°-180°	74.6	1.0
0°-30°	1003.4	13.1
0°-40°	1605.5	21.0
0°-60°	2678.5	35.1
0°-90°	3352.2	43.9
90°-120°	1779.7	23.3
90°-150°	3635.3	47.6
90°-180°	4281.0	56.1
0°-180°	7633.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1304	1328	1315	1317	1326	124
15°	1248	1266	1255	1261	1270	351
25°	1126	1144	1141	1136	1143	519
35°	960	974	965	956	956	601
45°	769	776	763	740	730	593
55°	567	574	554	520	503	508
65°	374	376	357	331	322	372
75°	202	202	206	200	196	216
85°	62	74	103	110	110	65
90°	6	42	77	93	95	9
95°	58	90	79	97	109	60
105°	172	243	903	1159	776	181
115°	285	335	774	1605	1875	282
125°	398	447	728	1269	1501	353
135°	484	537	731	1045	1200	373
145°	573	621	736	911	1007	360
155°	672	696	750	825	864	308
165°	746	755	770	790	805	209
175°	785	790	785	780	775	74
180°	785	785	785	785	785	



TEST NUMBER: P644190

CATALOG NUMBER: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1324.5	1324.5	1324.5	1324.5	1324.5
2.5°	1312.5	1331.5	1320.0	1323.0	1324.5
5°	1303.9	1327.7	1315.1	1317.2	1326.3
7.5°	1291.9	1313.9	1302.8	1305.2	1315.9
10°	1281.4	1303.4	1290.8	1294.7	1303.9
12.5°	1268.0	1288.4	1278.8	1282.8	1291.9
15°	1247.8	1266.0	1255.2	1261.1	1270.2
17.5°	1217.8	1237.6	1226.1	1229.3	1238.4
20°	1195.4	1213.7	1206.6	1206.8	1216.0
22.5°	1168.4	1188.2	1182.7	1178.4	1189.0
25°	1126.2	1144.5	1141.1	1135.7	1143.0
27.5°	1084.3	1097.8	1091.4	1085.9	1091.4
30°	1051.3	1067.8	1056.9	1051.5	1056.9
32.5°	1015.4	1031.9	1021.0	1014.0	1016.5
35°	959.7	974.3	965.3	955.9	955.9
37.5°	906.9	916.4	910.3	894.5	890.5
40°	868.0	879.0	869.9	851.0	845.6
42.5°	827.6	838.6	828.0	807.6	799.2
45°	768.9	776.2	763.2	740.5	729.6
47.5°	708.2	715.9	698.1	673.2	660.0
50°	667.8	677.0	654.7	628.2	613.6
52.5°	628.9	635.1	614.3	583.4	570.2
55°	566.8	574.1	553.7	519.7	503.2
57.5°	508.8	515.8	491.6	459.2	446.3
60°	471.4	476.9	452.7	418.7	405.9
62.5°	429.5	435.0	412.3	382.8	370.0
65°	374.1	376.0	357.3	330.9	321.8
67.5°	322.1	322.1	306.4	286.8	279.5
70°	286.2	286.2	275.0	259.9	252.5
72.5°	253.3	251.8	245.1	234.5	228.6
75°	202.0	202.0	205.8	200.1	196.4
77.5°	157.1	154.2	170.2	169.4	167.6
80°	127.2	127.2	147.8	151.5	149.7
82.5°	100.3	103.2	129.8	135.0	133.2
85°	61.7	74.5	102.9	110.4	110.4
87.5°	28.1	51.3	82.8	93.5	93.9
90°	5.6	41.5	77.2	93.4	95.3
92.5°	23.4	44.7	77.1	97.4	104.5
95°	58.2	90.2	78.8	97.1	108.6
97.5°	92.6	151.7	318.8	125.0	115.6
100°	116.3	185.5	605.1	203.4	149.1
102.5°	138.5	211.6	804.5	478.4	275.9
105°	171.8	242.9	903.0	1158.6	776.0
107.5°	205.1	256.3	858.4	1672.1	1568.6
110°	227.3	276.1	833.2	1753.4	1885.6



TEST NUMBER: P644190

CATALOG NUMBER: CRQ4DIP-SR4F0-100D125U930-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	251.0	299.8	809.5	1701.1	1922.1
115°	284.7	335.3	774.0	1604.7	1875.0
117.5°	318.9	370.8	764.7	1498.9	1777.0
120°	345.1	394.5	747.4	1418.7	1708.4
122.5°	364.9	416.7	727.7	1351.0	1617.5
125°	397.5	447.0	727.7	1269.3	1501.0
127.5°	423.9	476.5	728.7	1174.4	1403.2
130°	438.2	496.2	732.6	1110.9	1328.2
132.5°	455.0	512.9	731.1	1082.4	1261.0
135°	483.9	537.0	730.7	1045.3	1199.8
137.5°	508.6	565.5	730.7	1004.3	1136.6
140°	528.3	581.4	730.7	980.4	1101.1
142.5°	548.1	597.3	734.7	952.5	1065.5
145°	572.7	621.0	735.7	910.7	1007.2
147.5°	602.4	644.9	741.6	880.6	954.9
150°	622.1	660.7	745.6	860.5	923.3
152.5°	641.9	676.6	745.6	844.5	895.7
155°	671.5	695.6	750.5	825.4	864.1
157.5°	695.2	718.4	756.4	813.3	841.3
160°	711.0	730.3	760.4	805.4	829.5
162.5°	722.8	742.2	764.3	801.2	817.6
165°	745.6	755.2	770.2	790.3	804.8
167.5°	758.4	767.1	775.2	785.3	793.9
170°	770.2	775.1	775.2	785.2	790.0
172.5°	774.2	782.9	779.1	781.2	786.0
175°	785.1	789.9	785.1	780.0	775.2
177.5°	785.1	788.9	785.1	785.0	781.1
180°	785.1	785.1	785.1	785.1	785.1

(END OF REPORT)