

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: P644187

Luminaire Tested: CRQ4DIP-SR4F0-100D125U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644187
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-28, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-100D125U840-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

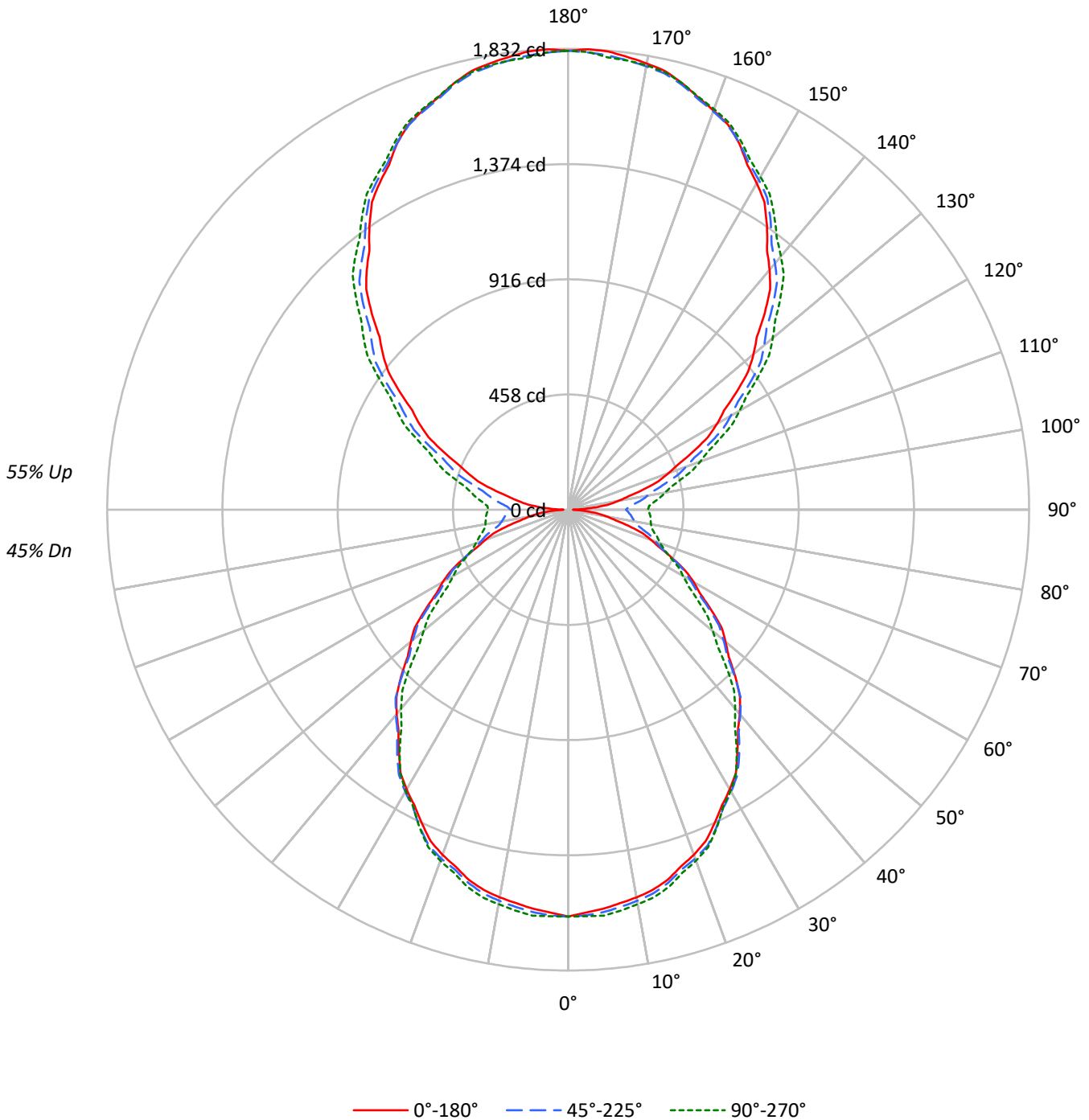
Lumens per Lamp: N/A
Luminaire Lumens: 9558.1 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (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	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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	52	52	52	45				
1	96	91	87	84	88	84	80	77	70	67	65	57	55	53	44	43	42	37				
2	87	80	73	68	80	73	68	63	61	57	53	49	47	44	39	37	35	30				
3	80	70	63	57	73	64	58	53	54	49	45	44	40	37	35	32	30	26				
4	73	62	54	48	66	57	50	45	48	42	38	39	35	32	31	28	26	22				
5	67	55	47	41	61	51	44	38	43	37	33	35	31	28	28	25	23	19				
6	62	49	41	36	56	46	38	33	38	33	29	32	27	24	25	22	20	17				
7	57	45	37	31	52	41	34	29	35	29	25	29	25	21	23	20	18	15				
8	53	41	33	27	48	38	31	26	32	26	22	26	22	19	21	18	16	13				
9	49	37	30	24	45	34	28	23	29	24	20	24	20	17	20	17	14	12				
10	46	34	27	22	42	31	25	21	27	22	18	22	18	16	18	15	13	11				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26118	26118	26118
5°	25624	23060	22345
10°	25286	20542	19302
15°	24916	18397	16883
20°	24346	16504	14767
25°	23586	14718	12868
30°	22840	13045	11170
35°	21829	11494	9587
40°	20883	10032	8127
45°	19792	8624	6782
50°	18638	7342	5563
55°	17415	6169	4586
60°	16248	5098	3811
65°	14809	4187	3230
70°	13429	3449	2833
75°	11744	2952	2611
80°	9812	2660	2515
85°	7154	2592	2551

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19792 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	1.6
10°-20°	433.5	4.5
20°-30°	640.2	6.7
30°-40°	736.9	7.7
40°-50°	715.2	7.5
50°-60°	603.7	6.3
60°-70°	456.0	4.8
70°-80°	324.6	3.4
80°-90°	246.2	2.6
90°-100°	267.7	2.8
100°-110°	415.5	4.3
110°-120°	607.9	6.4
120°-130°	785.2	8.2
130°-140°	887.6	9.3
140°-150°	876.9	9.2
150°-160°	741.7	7.8
160°-170°	493.8	5.2
170°-180°	172.7	1.8
0°-30°	1226.5	12.8
0°-40°	1963.4	20.5
0°-60°	3282.2	34.3
0°-90°	4309.0	45.1
90°-120°	1291.0	13.5
90°-150°	3840.7	40.2
90°-180°	5249.0	54.9
0°-180°	9558.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1592	1622	1606	1609	1620	151
15°	1524	1550	1535	1540	1551	429
25°	1375	1402	1394	1387	1396	634
35°	1172	1196	1185	1168	1168	734
45°	939	954	934	904	891	724
55°	692	709	680	641	628	621
65°	457	470	456	449	447	454
75°	247	262	308	344	354	264
85°	75	136	250	311	328	80
90°	20	110	229	296	317	18
95°	110	148	263	328	341	110
105°	308	321	397	453	463	328
115°	549	570	616	654	663	545
125°	817	844	884	914	922	732
135°	1104	1128	1150	1180	1193	851
145°	1377	1394	1402	1412	1427	860
155°	1607	1617	1609	1612	1621	738
165°	1755	1762	1749	1743	1755	495
175°	1828	1836	1813	1805	1805	174
180°	1824	1824	1824	1824	1824	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1617.6	1617.6	1617.6	1617.6	1617.6
2.5°	1603.0	1626.2	1613.7	1615.8	1617.6
5°	1592.5	1621.5	1606.2	1608.7	1619.9
7.5°	1577.8	1606.2	1593.0	1594.1	1607.1
10°	1565.0	1591.9	1578.4	1581.3	1592.5
12.5°	1548.6	1576.6	1562.2	1566.7	1577.8
15°	1523.9	1550.0	1535.0	1540.2	1551.3
17.5°	1487.4	1513.4	1499.4	1501.3	1512.5
20°	1459.9	1484.2	1475.6	1473.9	1485.1
22.5°	1427.0	1453.1	1446.3	1439.2	1452.2
25°	1375.4	1401.5	1393.7	1387.0	1396.0
27.5°	1324.2	1347.6	1335.2	1326.2	1332.9
30°	1284.0	1307.9	1294.8	1284.2	1290.9
32.5°	1240.2	1265.6	1250.9	1238.4	1241.5
35°	1172.1	1195.6	1184.7	1167.5	1167.5
37.5°	1107.6	1126.8	1113.7	1092.5	1087.5
40°	1060.1	1081.1	1064.3	1039.4	1032.7
42.5°	1010.8	1031.7	1014.7	986.3	976.0
45°	939.0	953.6	934.1	904.5	891.0
47.5°	865.0	881.6	855.4	822.1	806.1
50°	815.7	832.5	805.5	767.3	749.4
52.5°	768.1	782.9	754.6	714.1	699.5
55°	692.3	708.8	680.2	640.7	628.2
57.5°	621.4	637.5	606.6	578.3	566.8
60°	575.8	590.0	560.7	536.7	526.8
62.5°	524.6	540.4	514.4	500.7	493.8
65°	456.9	470.5	455.8	448.9	447.2
67.5°	393.4	404.8	401.0	409.0	411.8
70°	349.6	360.9	368.8	385.5	389.8
72.5°	309.4	320.4	343.1	366.8	372.9
75°	246.8	261.9	307.5	343.5	354.2
77.5°	191.9	208.8	281.1	327.0	340.3
80°	155.4	181.9	267.6	319.0	333.8
82.5°	122.5	158.6	258.1	316.0	330.8
85°	75.4	136.5	249.6	311.4	328.5
87.5°	37.0	119.9	239.7	304.3	323.7
90°	20.4	109.5	229.4	295.9	317.1
92.5°	54.1	119.2	239.6	304.4	321.3
95°	110.0	147.5	262.9	327.7	341.3
97.5°	164.9	187.8	294.6	354.7	367.9
100°	203.7	220.2	319.8	378.0	390.1
102.5°	245.2	257.2	349.7	404.8	418.1
105°	307.5	320.6	396.8	452.7	462.8
107.5°	376.8	391.1	455.3	507.6	517.8
110°	423.0	442.2	498.4	545.9	557.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	474.2	493.3	543.3	587.1	598.8
115°	548.6	569.9	616.5	653.6	663.0
117.5°	626.4	649.7	692.0	726.3	735.4
120°	683.4	705.5	746.0	778.7	786.3
122.5°	734.6	759.4	800.2	832.9	840.5
125°	816.7	844.4	883.5	914.3	921.8
127.5°	901.1	928.5	964.4	995.7	1005.5
130°	961.3	985.9	1017.1	1049.9	1061.3
132.5°	1016.5	1041.1	1069.5	1102.6	1115.5
135°	1103.9	1128.5	1150.4	1179.7	1193.0
137.5°	1187.9	1211.8	1228.6	1251.8	1268.5
140°	1245.3	1266.1	1278.2	1299.8	1315.0
142.5°	1297.9	1318.8	1327.8	1346.3	1361.5
145°	1376.9	1394.0	1402.1	1412.1	1427.3
147.5°	1450.9	1467.6	1471.1	1479.8	1489.3
150°	1499.0	1514.1	1514.4	1518.5	1528.0
152.5°	1543.9	1557.5	1553.2	1555.8	1566.7
155°	1607.4	1616.9	1609.3	1611.5	1621.0
157.5°	1657.8	1667.2	1655.4	1659.1	1666.7
160°	1688.7	1698.2	1684.9	1687.0	1694.6
162.5°	1718.2	1724.6	1712.8	1710.3	1720.9
165°	1754.6	1762.2	1748.8	1743.2	1754.6
167.5°	1785.6	1793.1	1775.5	1769.6	1780.9
170°	1801.1	1808.6	1789.4	1782.0	1793.3
172.5°	1815.0	1822.6	1801.8	1792.7	1801.1
175°	1828.2	1835.8	1812.7	1804.9	1804.9
177.5°	1832.1	1836.6	1819.7	1812.1	1821.2
180°	1824.3	1824.3	1824.3	1824.3	1824.3

(END OF REPORT)