

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P334243

Luminaire Tested: **S124RDW-S1020D840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334243  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDW-S1020D840-4F0-1E-UDD-F  
Description: DEFINE 4 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1020 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3886.2 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

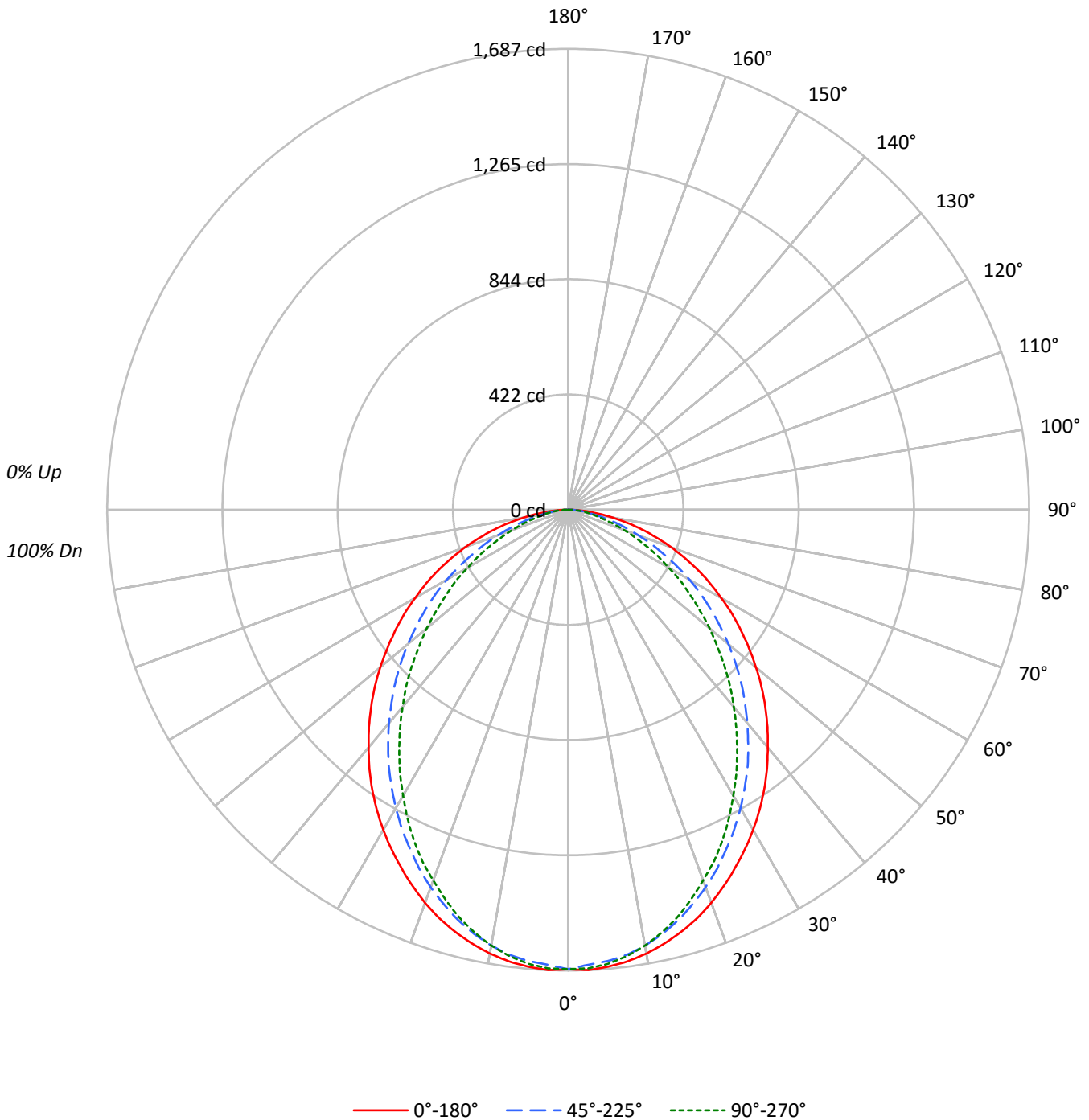
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54					54			
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47					47			
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41					41			
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37					37			
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33					33			
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30					30			
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27					27			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13578	13578	13578
5°	13609	13442	13525
10°	13523	13281	13281
15°	13368	13002	12905
20°	13155	12635	12403
25°	12882	12205	11896
30°	12617	11753	11261
35°	12324	11283	10623
40°	11971	10749	9935
45°	11645	10218	9234
50°	11273	9608	8491
55°	10876	8973	7685
60°	10438	8276	6862
65°	10036	7404	6052
70°	9453	6444	5136
75°	8718	5343	4177
80°	7606	4073	3831
85°	6438	3696	3455



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.2	4.1
10°-20°	441.0	11.3
20°-30°	636.6	16.4
30°-40°	721.5	18.6
40°-50°	696.7	17.9
50°-60°	579.2	14.9
60°-70°	399.8	10.3
70°-80°	202.0	5.2
80°-90°	51.3	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1235.8	31.8
0°-40°	1957.3	50.4
0°-60°	3233.2	83.2
0°-90°	3886.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3886.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1682	1682	1682	1682	1682	
5°	1679	1674	1659	1672	1669	159
15°	1600	1588	1556	1553	1544	451
25°	1446	1423	1370	1348	1336	666
35°	1250	1209	1145	1101	1078	782
45°	1020	972	895	832	809	787
55°	773	721	638	570	546	691
65°	525	470	388	332	317	519
75°	280	232	171	142	134	295
85°	70	44	40	37	37	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1681.9	1681.9	1681.9	1681.9	1681.9
2.5°	1687.1	1681.9	1667.7	1681.9	1680.6
5°	1679.3	1674.2	1658.7	1671.6	1669.0
7.5°	1667.7	1662.6	1643.3	1652.3	1648.4
10°	1649.7	1643.3	1620.1	1625.2	1620.1
12.5°	1626.5	1618.8	1590.5	1593.0	1585.3
15°	1599.5	1587.9	1555.7	1553.1	1544.1
17.5°	1568.6	1551.8	1514.5	1508.0	1495.2
20°	1531.2	1514.5	1470.7	1460.4	1443.7
22.5°	1490.0	1470.7	1423.0	1406.3	1393.4
25°	1446.2	1423.0	1370.2	1348.4	1335.5
27.5°	1401.2	1372.8	1317.4	1291.7	1273.7
30°	1353.5	1321.3	1260.8	1228.6	1208.0
32.5°	1303.3	1265.9	1202.8	1164.2	1144.9
35°	1250.5	1209.3	1144.9	1101.1	1077.9
37.5°	1195.1	1152.6	1081.8	1034.1	1010.9
40°	1135.9	1093.4	1020.0	965.9	942.7
42.5°	1079.2	1034.1	956.9	901.5	877.0
45°	1020.0	972.3	895.0	831.9	808.8
47.5°	959.4	910.5	830.6	765.0	739.2
50°	897.6	847.4	765.0	700.6	676.1
52.5°	834.5	785.6	700.6	634.9	609.1
55°	772.7	721.2	637.5	570.5	546.0
57.5°	712.2	658.1	575.7	507.4	489.4
60°	646.5	595.0	512.6	445.6	425.0
62.5°	587.2	533.2	448.2	387.6	372.2
65°	525.4	470.1	387.6	332.3	316.8
67.5°	461.0	408.2	331.0	282.0	264.0
70°	400.5	346.4	273.0	230.5	217.6
72.5°	336.1	288.5	220.2	185.4	173.9
75°	279.5	231.8	171.3	141.7	133.9
77.5°	220.2	179.0	127.5	106.9	104.3
80°	163.6	126.2	87.6	83.7	82.4
82.5°	114.6	81.1	63.1	60.5	59.2
85°	69.5	43.8	39.9	37.3	37.3
87.5°	29.6	19.3	18.0	16.7	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)