

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: P334019

Luminaire Tested: **S123DW-S1165D940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DW-S1165D940-4F0-1E-UDD-F  
Description: DEFINE 3 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1165 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4000.1 lumens  
Efficiency: N/A  
Efficacy: 97.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

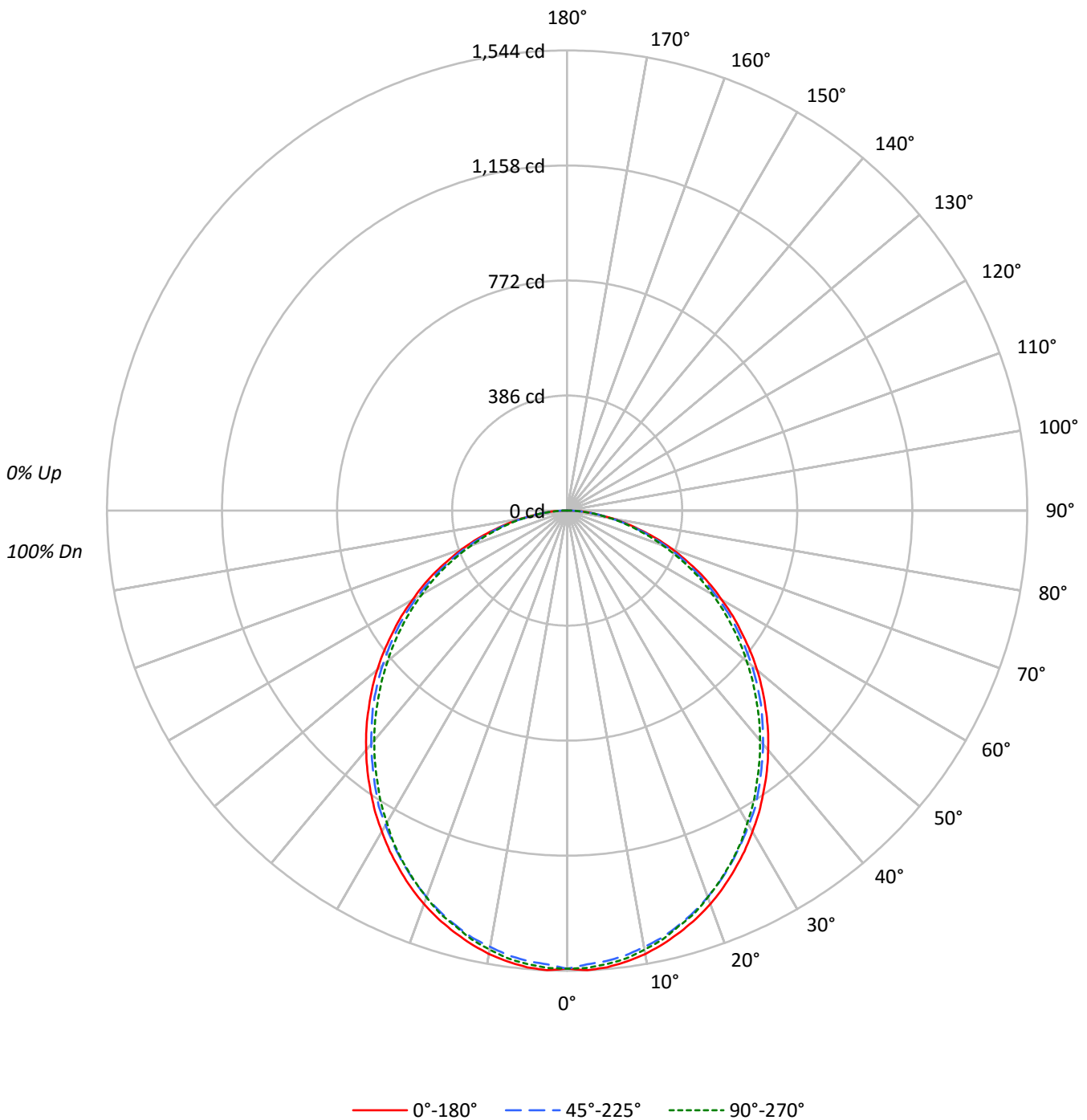
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	16544	16544	16544
5°	16621	16393	16507
10°	16511	16251	16351
15°	16318	16067	16097
20°	16092	15804	15820
25°	15790	15492	15461
30°	15457	15145	15029
35°	15109	14779	14587
40°	14744	14373	14150
45°	14344	14002	13661
50°	13942	13544	13167
55°	13418	13071	12673
60°	12889	12518	12120
65°	12422	11915	11545
70°	11729	11229	10732
75°	10717	10335	9894
80°	9664	9255	9174
85°	8485	8163	7830



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.9	3.6
10°-20°	409.1	10.2
20°-30°	604.3	15.1
30°-40°	705.7	17.6
40°-50°	709.5	17.7
50°-60°	623.2	15.6
60°-70°	464.2	11.6
70°-80°	264.1	6.6
80°-90°	75.1	1.9
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°	1158.3	29.0
0°-40°	1864.0	46.6
0°-60°	3196.7	79.9
0°-90°	4000.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4000.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1538	1532	1517	1530	1528	146
15°	1464	1459	1442	1452	1444	413
25°	1330	1322	1304	1306	1302	612
35°	1150	1142	1125	1117	1110	719
45°	942	937	920	904	897	727
55°	715	714	696	682	675	640
65°	488	481	468	457	453	481
75°	258	252	248	242	238	275
85°	69	66	66	63	63	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1537.0	1537.0	1537.0	1537.0	1537.0
2.5°	1543.6	1538.3	1523.8	1537.0	1535.7
5°	1538.3	1531.7	1517.2	1530.4	1527.7
7.5°	1526.4	1519.8	1505.3	1517.2	1515.9
10°	1510.6	1504.0	1486.8	1498.7	1496.0
12.5°	1489.4	1484.1	1468.3	1476.2	1474.9
15°	1464.3	1459.0	1441.8	1452.4	1444.5
17.5°	1436.6	1430.0	1412.8	1420.7	1418.1
20°	1404.8	1396.9	1379.7	1385.0	1381.1
22.5°	1369.2	1361.2	1344.0	1348.0	1342.7
25°	1329.5	1321.6	1304.4	1305.7	1301.8
27.5°	1288.5	1280.6	1262.1	1263.4	1259.5
30°	1243.6	1237.0	1218.5	1218.5	1209.2
32.5°	1198.7	1189.4	1176.2	1167.0	1163.0
35°	1149.8	1141.8	1124.7	1116.7	1110.1
37.5°	1100.9	1090.3	1073.1	1063.9	1059.9
40°	1049.3	1041.4	1022.9	1012.3	1007.0
42.5°	997.8	988.5	970.0	959.5	954.2
45°	942.3	937.0	919.8	904.0	897.4
47.5°	888.1	880.2	864.3	848.5	843.2
50°	832.6	826.0	808.8	794.3	786.3
52.5°	774.4	770.5	752.0	740.1	732.2
55°	715.0	713.7	696.5	681.9	675.3
57.5°	659.5	654.2	641.0	627.8	619.8
60°	598.7	597.4	581.5	569.6	563.0
62.5°	544.5	540.5	524.7	512.8	508.8
65°	487.7	481.1	467.8	457.3	453.3
67.5°	426.9	421.6	411.0	401.8	396.5
70°	372.7	364.8	356.8	347.6	341.0
72.5°	315.9	310.6	301.3	293.4	290.7
75°	257.7	252.4	248.5	241.8	237.9
77.5°	206.2	203.5	198.2	193.0	193.0
80°	155.9	152.0	149.3	148.0	148.0
82.5°	107.0	107.0	107.0	104.4	103.1
85°	68.7	66.1	66.1	63.4	63.4
87.5°	34.4	30.4	29.1	27.8	27.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)