

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: P333999

Luminaire Tested: **S123DW-S1165D840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333999  
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-S1165D840-4F0-1E-UDD-F  
Description: DEFINE 3 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1165 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4530.1 lumens  
Efficiency: N/A  
Efficacy: 110.2 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

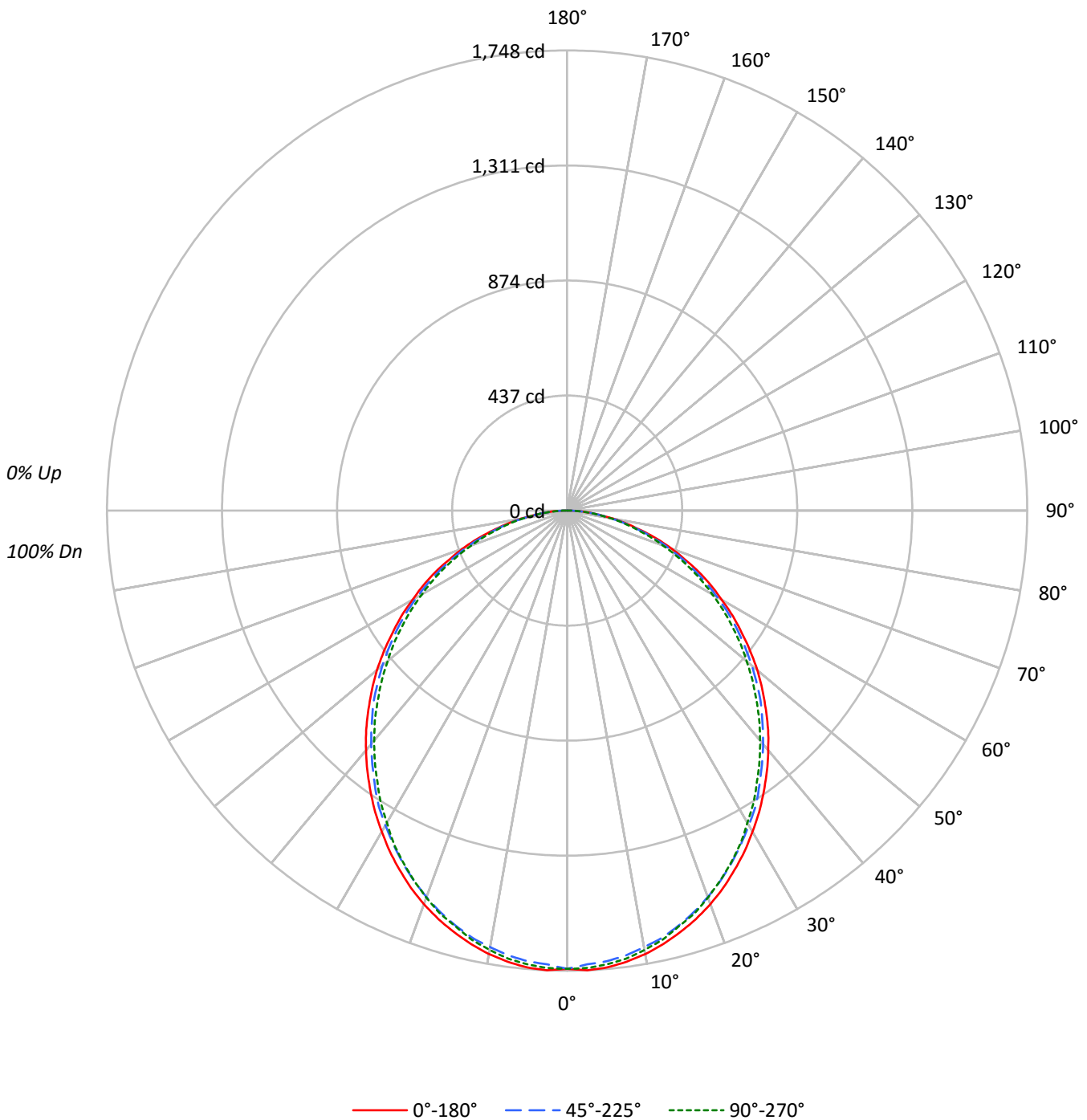
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	18737	18737	18737
5°	18825	18565	18695
10°	18698	18404	18519
15°	18479	18196	18230
20°	18224	17899	17915
25°	17883	17544	17509
30°	17505	17152	17022
35°	17110	16737	16520
40°	16699	16277	16025
45°	16244	15857	15471
50°	15790	15339	14912
55°	15195	14803	14352
60°	14596	14176	13726
65°	14067	13494	13076
70°	13284	12718	12151
75°	12140	11703	11204
80°	10947	10482	10389
85°	9608	9238	8867



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.1	3.6
10°-20°	463.4	10.2
20°-30°	684.3	15.1
30°-40°	799.2	17.6
40°-50°	803.5	17.7
50°-60°	705.8	15.6
60°-70°	525.7	11.6
70°-80°	299.1	6.6
80°-90°	85.0	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°	1311.8	29.0
0°-40°	2111.0	46.6
0°-60°	3620.3	79.9
0°-90°	4530.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4530.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1741	1741	1741	1741	1741	
5°	1742	1735	1718	1733	1730	165
15°	1658	1652	1633	1645	1636	468
25°	1506	1497	1477	1479	1474	694
35°	1302	1293	1274	1265	1257	815
45°	1067	1061	1042	1024	1016	824
55°	810	808	789	772	765	725
65°	552	545	530	518	513	545
75°	292	286	281	274	269	312
85°	78	75	75	72	72	89
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1740.7	1740.7	1740.7	1740.7	1740.7
2.5°	1748.1	1742.2	1725.7	1740.7	1739.2
5°	1742.2	1734.7	1718.2	1733.2	1730.2
7.5°	1728.7	1721.2	1704.7	1718.2	1716.7
10°	1710.7	1703.2	1683.8	1697.3	1694.3
12.5°	1686.8	1680.8	1662.8	1671.8	1670.3
15°	1658.3	1652.4	1632.9	1644.9	1635.9
17.5°	1626.9	1619.4	1600.0	1608.9	1606.0
20°	1591.0	1582.0	1562.6	1568.5	1564.0
22.5°	1550.6	1541.6	1522.1	1526.6	1520.6
25°	1505.7	1496.7	1477.2	1478.7	1474.2
27.5°	1459.3	1450.3	1429.3	1430.8	1426.4
30°	1408.4	1400.9	1380.0	1380.0	1369.5
32.5°	1357.5	1347.0	1332.1	1321.6	1317.1
35°	1302.1	1293.1	1273.7	1264.7	1257.2
37.5°	1246.7	1234.8	1215.3	1204.8	1200.4
40°	1188.4	1179.4	1158.4	1146.5	1140.5
42.5°	1130.0	1119.5	1098.6	1086.6	1080.6
45°	1067.1	1061.2	1041.7	1023.7	1016.3
47.5°	1005.8	996.8	978.8	960.9	954.9
50°	942.9	935.4	916.0	899.5	890.5
52.5°	877.1	872.6	851.6	838.1	829.2
55°	809.7	808.2	788.8	772.3	764.8
57.5°	746.9	740.9	725.9	710.9	702.0
60°	678.0	676.5	658.5	645.1	637.6
62.5°	616.6	612.1	594.2	580.7	576.2
65°	552.3	544.8	529.8	517.9	513.4
67.5°	483.4	477.4	465.5	455.0	449.0
70°	422.1	413.1	404.1	393.6	386.1
72.5°	357.7	351.7	341.2	332.3	329.3
75°	291.9	285.9	281.4	273.9	269.4
77.5°	233.5	230.5	224.5	218.5	218.5
80°	176.6	172.1	169.1	167.6	167.6
82.5°	121.2	121.2	121.2	118.2	116.7
85°	77.8	74.8	74.8	71.8	71.8
87.5°	38.9	34.4	32.9	31.4	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)