

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: P199566

Luminaire Tested: **S125-DIP-ULO-2-40-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199566  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27900 P27899)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DIP-ULO-2-40-X-X0048-1D-UDD-1-NA-W  
Description: DEFINE 5-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE  
UPLIGHT LLO-4000K, NO LENS  
DOWNLIGHT LL2-4000K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6088.7 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4.08' x H: 0.38')  
CIE Type: Semi-Direct

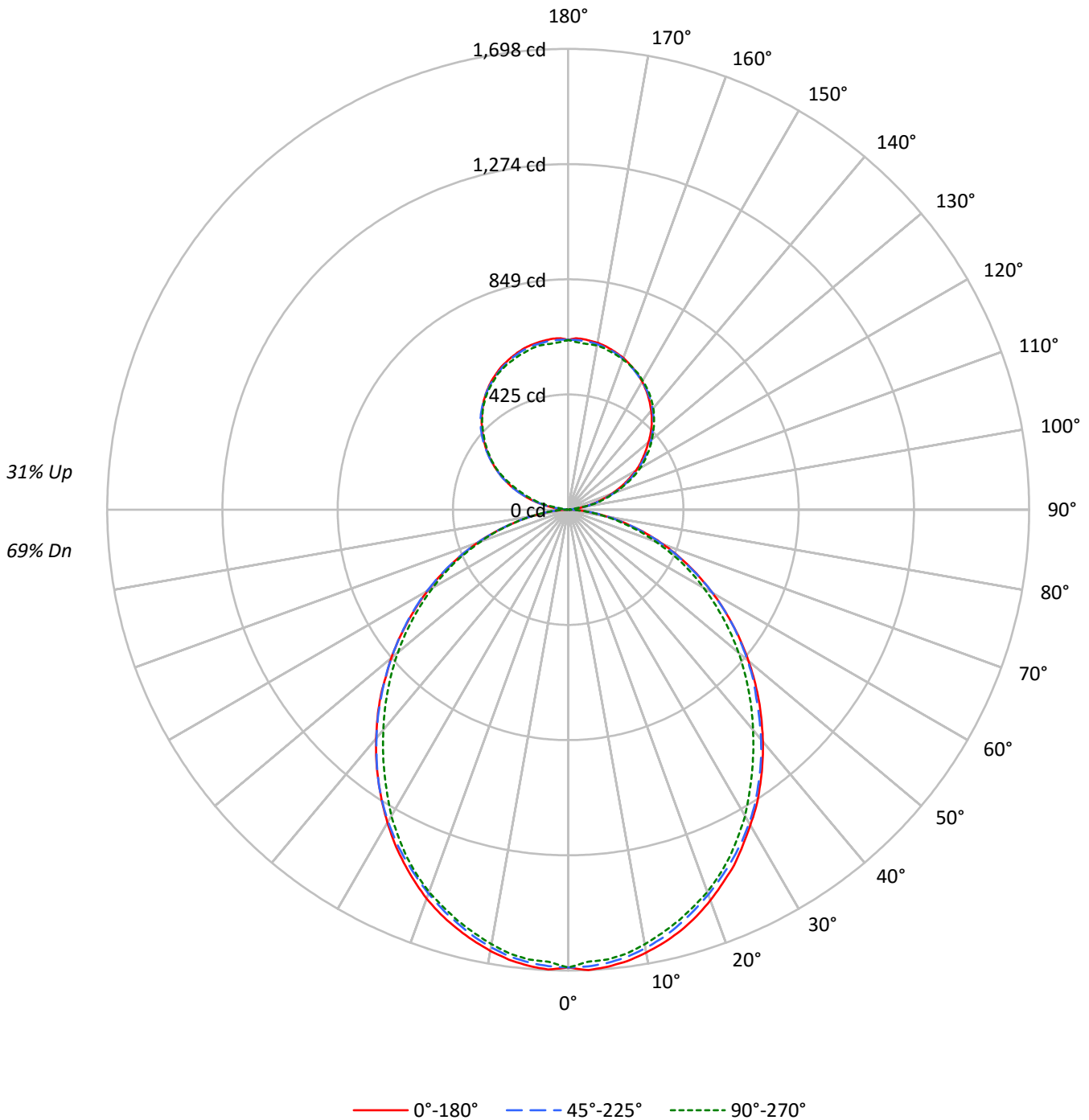
Input Watts (W): 55.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	112	112	112	112	106	106	106	106	94	94	94	83	83	83	74	74	74	69
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	65	64	63	58
2	93	86	79	74	88	81	75	71	73	68	64	65	61	58	58	55	53	49
3	85	75	68	62	80	71	65	59	64	59	54	57	53	50	51	48	45	42
4	78	67	59	52	73	63	56	50	57	51	46	51	46	43	46	42	39	36
5	72	60	51	45	67	57	49	43	51	45	40	46	41	37	41	37	34	31
6	66	54	45	39	62	51	43	38	46	40	35	42	37	33	38	33	30	27
7	61	49	40	35	58	46	39	33	42	36	31	38	33	29	34	30	27	24
8	57	44	36	31	54	42	35	30	38	32	28	35	30	26	32	27	24	22
9	53	41	33	28	50	39	32	27	35	29	25	32	27	23	29	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20	18

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

	0°	90°	180°
0°	10671	10671	10671
5°	10646	9796	10626
10°	10474	9014	10435
15°	10261	8274	10195
20°	9980	7601	9933
25°	9681	6929	9598
30°	9310	6262	9238
35°	8952	5595	8847
40°	8556	4983	8438
45°	8138	4424	8019
50°	7692	3887	7546
55°	7217	3363	7046
60°	6705	2848	6525
65°	6146	2352	5926
70°	5489	1825	5230
75°	4604	1297	4285
80°	3488	807	3191
85°	2082	352	1827



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.6	2.6
10°-20°	445.3	7.3
20°-30°	654.2	10.7
30°-40°	755.5	12.4
40°-50°	748.9	12.3
50°-60°	649.5	10.7
60°-70°	474.4	7.8
70°-80°	259.3	4.3
80°-90°	67.4	1.1
90°-100°	20.1	0.3
100°-110°	132.9	2.2
110°-120°	243.8	4.0
120°-130°	316.0	5.2
130°-140°	343.3	5.6
140°-150°	324.5	5.3
150°-160°	264.0	4.3
160°-170°	171.7	2.8
170°-180°	59.4	1.0
0°-30°	1258.0	20.7
0°-40°	2013.5	33.1
0°-60°	3412.0	56.0
0°-90°	4213.1	69.2
90°-120°	396.8	6.5
90°-150°	1380.6	22.7
90°-180°	1876.0	30.8
0°-180°	6088.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1687	1687	1687	1687	1687	
5°	1690	1676	1664	1674	1687	160
15°	1605	1582	1568	1577	1595	452
25°	1446	1427	1409	1420	1434	665
35°	1234	1223	1181	1219	1219	771
45°	993	980	939	974	979	766
55°	740	739	697	726	723	662
65°	491	487	460	476	474	487
75°	253	251	231	236	235	269
85°	59	62	55	55	52	66
90°	2	4	2	3	2	4
95°	13	4	4	6	31	20
105°	109	116	124	137	140	116
115°	230	239	246	258	257	226
125°	338	348	356	363	361	302
135°	434	444	448	457	451	334
145°	512	517	522	526	526	321
155°	572	570	572	577	582	264
165°	612	608	602	612	617	173
175°	631	625	615	626	633	60
180°	626	626	626	626	626	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7	1686.7
2.5°	1698.1	1680.6	1684.7	1681.6	1667.1	1679.5	1683.6	1677.5	1696.0
5°	1689.8	1672.3	1676.4	1672.3	1664.0	1670.2	1674.4	1668.2	1686.7
7.5°	1677.5	1658.9	1662.0	1657.8	1649.6	1654.7	1659.9	1653.7	1672.3
10°	1656.8	1639.3	1640.3	1635.1	1625.8	1632.0	1637.2	1632.0	1650.6
12.5°	1633.1	1614.5	1614.5	1606.2	1598.0	1603.1	1610.4	1606.2	1624.8
15°	1605.2	1585.6	1582.5	1577.3	1568.0	1574.2	1577.3	1576.3	1594.9
17.5°	1571.1	1550.5	1546.4	1545.3	1534.0	1542.2	1543.3	1540.2	1562.9
20°	1531.9	1512.3	1509.2	1508.2	1498.9	1505.1	1505.1	1500.9	1524.7
22.5°	1488.5	1470.0	1468.9	1466.9	1456.5	1463.8	1463.8	1457.6	1481.3
25°	1446.2	1423.5	1426.6	1421.4	1409.1	1419.4	1420.4	1410.1	1433.8
27.5°	1393.6	1376.0	1382.2	1372.9	1356.4	1369.8	1376.0	1360.5	1385.3
30°	1342.0	1323.4	1333.7	1317.2	1302.7	1315.1	1326.5	1306.9	1331.6
32.5°	1291.4	1269.7	1282.1	1261.4	1240.8	1256.3	1274.9	1256.3	1275.9
35°	1233.6	1216.0	1223.3	1201.6	1180.9	1196.4	1219.1	1201.6	1219.1
37.5°	1175.8	1161.3	1166.5	1140.7	1120.0	1135.5	1159.2	1145.8	1161.3
40°	1115.9	1105.6	1105.6	1079.8	1059.1	1073.6	1098.3	1091.1	1100.4
42.5°	1054.0	1049.8	1041.6	1018.9	999.2	1013.7	1037.4	1035.4	1039.5
45°	993.1	993.1	979.6	955.9	939.4	952.8	974.5	979.6	978.6
47.5°	930.1	935.2	923.9	898.1	879.5	892.9	912.5	921.8	911.5
50°	867.1	876.4	862.0	839.2	818.6	833.0	849.6	862.0	850.6
52.5°	804.1	815.5	800.0	778.3	757.7	771.1	787.6	802.1	787.6
55°	740.1	753.6	739.1	716.4	696.8	709.2	725.7	740.1	722.6
57.5°	677.2	689.6	677.2	654.5	635.9	647.2	664.8	676.1	660.7
60°	614.2	627.6	615.2	593.6	576.0	585.3	601.8	613.2	597.7
62.5°	552.3	563.6	550.2	532.7	519.2	523.4	538.8	552.3	535.8
65°	491.4	501.7	487.2	471.8	460.4	462.5	475.9	483.1	473.8
67.5°	431.5	442.8	427.4	412.9	399.5	403.6	415.0	425.3	413.9
70°	371.6	383.0	366.5	354.1	342.7	344.8	354.1	365.4	354.1
72.5°	312.8	322.1	310.7	296.3	288.0	290.1	295.2	305.6	294.2
75°	252.9	263.2	250.8	239.5	231.2	233.3	236.4	244.7	235.4
77.5°	197.2	204.4	196.1	186.8	181.7	182.7	183.7	189.9	181.7
80°	145.6	151.7	146.6	139.4	135.2	135.2	135.2	140.4	133.2
82.5°	99.1	105.3	101.2	96.0	92.9	89.8	91.9	96.0	89.8
85°	58.8	64.0	61.9	56.8	54.7	52.6	54.7	56.8	51.6
87.5°	26.8	31.0	27.9	22.7	20.6	18.6	18.6	21.7	17.5
90°	2.1	5.2	4.1	3.1	2.1	2.1	3.1	4.1	2.1
92.5°	1.8	2.6	2.6	2.9	2.9	3.3	3.7	4.4	12.5
95°	13.3	14.7	4.1	4.4	4.4	4.8	6.3	35.7	30.6
97.5°	30.6	39.1	12.9	7.7	7.0	10.3	39.8	56.7	53.8
100°	54.5	60.8	61.5	40.2	27.3	56.4	78.5	84.7	80.7
102.5°	80.7	87.7	85.8	93.2	95.8	103.9	105.7	113.8	110.5
105°	109.1	116.8	115.7	123.1	123.8	133.0	136.7	141.5	139.6
107.5°	138.9	144.4	147.4	152.2	151.8	161.7	169.1	171.3	169.5
110°	169.5	173.2	178.7	182.0	182.0	191.9	200.4	200.8	198.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	198.6	204.8	210.0	214.1	213.3	224.0	229.9	231.0	228.8
115°	229.5	232.1	239.1	245.0	246.1	254.2	258.3	259.4	257.2
117.5°	257.9	261.9	266.4	273.4	277.1	282.2	285.2	287.0	284.8
120°	288.1	290.7	293.3	299.9	306.5	309.5	311.7	313.2	311.3
122.5°	314.3	316.1	321.6	326.1	332.7	334.9	338.2	337.8	336.4
125°	337.5	340.1	348.2	350.7	356.3	359.2	363.3	361.1	361.1
127.5°	361.8	364.0	374.3	374.7	379.8	383.2	388.3	384.6	385.0
130°	385.7	389.4	398.6	398.6	402.7	406.4	412.3	406.7	408.2
132.5°	411.2	412.3	420.7	421.1	424.8	428.5	435.5	428.1	429.6
135°	434.4	433.3	444.3	442.5	447.6	449.8	456.8	448.0	450.6
137.5°	455.4	452.8	464.6	462.7	468.3	468.6	476.0	467.5	470.5
140°	476.0	473.1	483.0	481.9	488.2	487.4	492.9	485.9	490.0
142.5°	494.4	491.1	500.7	500.3	505.1	505.1	509.9	504.0	509.9
145°	512.5	508.1	516.9	516.5	521.7	521.3	525.7	520.2	525.7
147.5°	529.4	525.0	532.0	531.3	535.7	536.1	539.7	536.4	542.3
150°	544.9	540.8	545.3	544.9	548.9	549.3	553.0	551.5	555.9
152.5°	558.9	555.2	557.4	556.7	562.6	560.4	564.8	564.1	568.8
155°	571.8	568.1	569.9	568.5	572.5	572.2	576.9	576.2	581.7
157.5°	583.6	579.5	581.0	578.8	581.7	581.7	587.3	587.3	591.3
160°	595.0	589.5	591.3	587.6	588.7	590.2	596.8	596.8	600.5
162.5°	603.1	599.4	600.5	595.4	596.5	597.2	604.9	604.9	609.4
165°	611.9	607.2	608.3	602.0	602.4	604.2	611.9	612.3	617.1
167.5°	618.9	614.2	613.8	607.5	609.4	609.7	617.1	617.5	622.6
170°	624.5	619.3	619.3	612.7	614.2	613.4	621.2	622.3	626.7
172.5°	627.4	623.7	622.6	615.3	614.9	616.0	624.1	625.6	630.0
175°	631.1	626.7	624.8	617.8	614.9	618.6	625.9	627.4	632.6
177.5°	632.2	627.8	626.3	618.9	618.9	619.7	627.1	628.2	632.2
180°	625.6	625.6	625.6	625.6	625.6	625.6	625.6	625.6	625.6

(END OF REPORT)