

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: P231590

Luminaire Tested: **S125-DR-2-40-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231590
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29678)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125-DR-2-40-X-0048-1-U-DD-3-W
Description: DEFINE 5 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

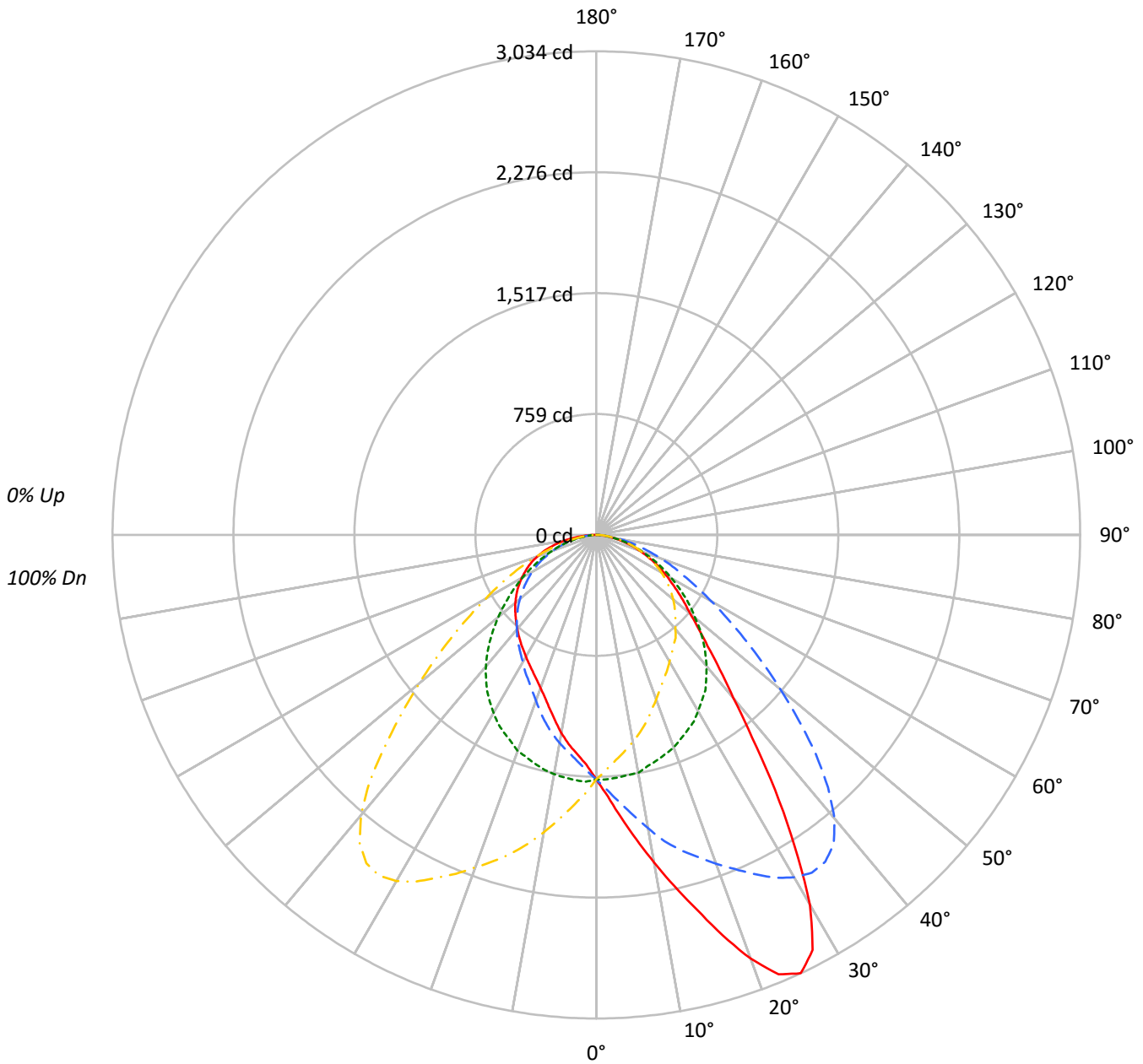
Lumens per Lamp: N/A
Luminaire Lumens: 4505.7 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.24 / 1.52
Luminous Opening: Rectangular (W 3.92' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 42.6
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



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10808	10808	10808	10808
5°	12586	10808	9757	10921
10°	14933	10840	9032	10903
15°	17743	10684	8239	10842
20°	21217	10636	7668	10809
25°	23593	10510	7344	10646
30°	21799	10377	7180	10483
35°	16797	10250	7106	10275
40°	12276	9884	7094	9911
45°	9830	9441	7138	9412
50°	8392	8867	7267	8803
55°	7665	8322	7434	8144
60°	7103	7674	7613	7510
65°	6550	7080	7850	6863
70°	5921	6309	8093	6101
75°	5230	5584	8179	5426
80°	4338	4573	8031	4513
85°	3153	3501	7592	3501



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	3.3
10°-20°	463.1	10.3
20°-30°	769.8	17.1
30°-40°	896.4	19.9
40°-50°	807.8	17.9
50°-60°	648.4	14.4
60°-70°	457.0	10.1
70°-80°	247.5	5.5
80°-90°	65.9	1.5
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°	1382.6	30.7
0°-40°	2279.0	50.6
0°-60°	3735.2	82.9
0°-90°	4505.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4505.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1534	1534	1534	1534	1534	
5°	1779	1528	1379	1544	1779	179
15°	2432	1464	1129	1486	2432	704
25°	3034	1352	944	1369	3034	1353
35°	1953	1192	826	1194	1953	1220
45°	986	947	716	944	986	778
55°	624	677	605	663	624	561
65°	393	425	471	412	393	389
75°	192	205	300	199	192	205
85°	39	43	94	43	39	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8
2.5°	1640.7	1626.2	1604.6	1559.8	1535.2	1487.6	1471.7	1457.3	1441.4	1451.5	1476.0
5°	1779.3	1738.9	1684.0	1593.0	1528.0	1450.0	1416.8	1390.8	1379.3	1386.5	1419.7
7.5°	1926.6	1870.3	1773.5	1629.1	1519.4	1413.9	1367.7	1335.9	1324.4	1331.6	1370.6
10°	2086.9	2006.1	1868.9	1668.1	1515.0	1386.5	1318.6	1276.7	1262.3	1273.8	1325.8
12.5°	2255.9	2141.8	1967.1	1691.2	1486.1	1340.3	1268.1	1211.7	1193.0	1210.3	1276.7
15°	2432.1	2307.9	2048.0	1717.2	1464.5	1301.3	1213.2	1148.2	1129.4	1148.2	1223.3
17.5°	2634.3	2468.2	2118.7	1737.4	1441.4	1259.4	1151.1	1087.5	1070.2	1089.0	1165.5
20°	2829.3	2631.4	2195.3	1751.9	1418.3	1221.8	1097.6	1035.5	1022.5	1034.1	1106.3
22.5°	2983.8	2775.9	2268.9	1740.3	1385.0	1168.4	1044.2	993.6	980.6	987.9	1054.3
25°	3034.4	2900.1	2348.4	1723.0	1351.8	1117.9	998.0	963.3	944.5	950.3	1006.6
27.5°	2936.2	2918.8	2424.9	1692.7	1321.5	1068.7	960.4	925.8	912.8	917.1	967.6
30°	2679.1	2814.8	2481.2	1658.0	1275.3	1026.9	917.1	886.8	882.4	886.8	921.4
32.5°	2313.7	2606.9	2513.0	1608.9	1230.5	970.5	881.0	855.0	853.6	850.7	883.9
35°	1952.6	2289.1	2502.9	1558.3	1191.5	925.8	843.4	823.2	826.1	820.3	847.8
37.5°	1603.1	1946.9	2445.1	1506.4	1130.8	892.5	816.0	792.9	798.7	791.5	814.6
40°	1334.5	1637.8	2322.4	1445.7	1074.5	840.6	771.2	764.0	771.2	761.1	775.6
42.5°	1145.3	1379.3	2149.0	1385.0	1012.4	800.1	735.1	733.7	743.8	732.2	738.0
45°	986.4	1167.0	1945.4	1318.6	947.4	753.9	699.0	701.9	716.3	701.9	701.9
47.5°	868.0	1002.3	1720.1	1247.8	882.4	712.0	664.4	671.6	690.4	671.6	665.8
50°	765.5	873.8	1504.9	1172.7	808.8	673.0	628.2	639.8	662.9	638.4	625.4
52.5°	693.2	769.8	1307.0	1091.9	743.8	626.8	590.7	606.6	634.0	606.6	584.9
55°	623.9	681.7	1128.0	1006.6	677.4	582.0	550.3	573.4	605.1	574.8	545.9
57.5°	560.4	608.0	969.1	917.1	609.5	537.3	511.3	538.7	571.9	538.7	505.5
60°	504.0	540.2	831.9	824.7	544.5	489.6	470.8	502.6	540.2	502.6	463.6
62.5°	447.7	476.6	710.6	730.8	482.4	440.5	428.9	463.6	505.5	463.6	424.6
65°	392.8	417.4	603.7	635.5	424.6	391.4	387.1	423.2	470.8	423.2	381.3
67.5°	338.0	356.7	517.0	545.9	362.5	339.4	339.4	382.7	434.7	381.3	332.2
70°	287.4	301.8	428.9	460.7	306.2	291.7	296.1	338.0	392.8	335.1	288.9
72.5°	238.3	249.9	345.2	372.6	254.2	244.1	251.3	296.1	348.1	293.2	248.4
75°	192.1	200.8	274.4	299.0	205.1	199.3	208.0	251.3	300.4	249.9	205.1
77.5°	148.8	156.0	208.0	226.7	156.0	156.0	164.6	212.3	249.9	209.4	163.2
80°	106.9	112.7	150.2	163.2	112.7	115.5	125.6	163.2	197.9	161.8	122.8
82.5°	70.8	75.1	99.7	108.3	75.1	78.0	88.1	124.2	144.4	118.4	86.7
85°	39.0	41.9	57.8	62.1	43.3	47.7	56.3	78.0	93.9	80.9	54.9
87.5°	14.4	15.9	24.6	26.0	18.8	21.7	28.9	41.9	49.1	43.3	28.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1533.8	1533.8	1533.8	1533.8	1533.8	1533.8
2.5°	1494.8	1549.7	1575.7	1624.8	1646.4	1640.7
5°	1457.3	1543.9	1611.8	1708.6	1762.0	1779.3
7.5°	1422.6	1535.2	1650.8	1799.5	1899.2	1926.6
10°	1380.7	1523.7	1686.9	1893.4	2037.8	2086.9
12.5°	1348.9	1509.2	1725.9	1984.4	2183.7	2255.9
15°	1305.6	1486.1	1747.5	2069.6	2333.9	2432.1
17.5°	1265.2	1461.6	1767.8	2146.2	2501.4	2634.3
20°	1220.4	1441.4	1776.4	2219.8	2673.3	2829.3
22.5°	1172.7	1402.4	1772.1	2300.7	2830.7	2983.8
25°	1119.3	1369.2	1751.9	2372.9	2933.3	3034.4
27.5°	1070.2	1335.9	1720.1	2452.3	2943.4	2936.2
30°	1022.5	1288.3	1682.6	2507.2	2829.3	2679.1
32.5°	973.4	1242.1	1632.0	2534.7	2588.1	2313.7
35°	927.2	1194.4	1581.5	2514.4	2263.1	1952.6
37.5°	882.4	1136.6	1526.6	2437.9	1910.7	1603.1
40°	837.7	1077.4	1467.4	2294.9	1598.8	1334.5
42.5°	797.2	1012.4	1406.7	2108.6	1346.0	1145.3
45°	752.5	944.5	1337.4	1871.8	1148.2	986.4
47.5°	714.9	873.8	1266.6	1653.7	986.4	868.0
50°	670.1	803.0	1188.6	1448.6	857.9	765.5
52.5°	622.5	732.2	1103.4	1263.7	755.3	693.2
55°	576.3	662.9	1015.3	1090.4	671.6	623.9
57.5°	534.4	597.9	922.9	935.9	597.9	560.4
60°	483.8	532.9	827.6	801.6	528.6	504.0
62.5°	439.1	470.8	730.8	687.5	465.0	447.7
65°	385.6	411.6	634.0	586.4	407.3	392.8
67.5°	333.6	351.0	543.0	489.6	348.1	338.0
70°	290.3	296.1	449.2	405.8	293.2	287.4
72.5°	242.6	249.9	368.3	325.0	242.6	238.3
75°	196.4	199.3	288.9	257.1	196.4	192.1
77.5°	153.1	153.1	216.6	193.5	150.2	148.8
80°	112.7	111.2	154.5	138.6	109.8	106.9
82.5°	76.5	73.7	101.1	91.0	72.2	70.8
85°	46.2	43.3	57.8	53.4	40.4	39.0
87.5°	23.1	21.7	24.6	21.7	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)