

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: P243643

Luminaire Tested: **S125DR-H1090D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243643  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H1090D840-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4278.2 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct

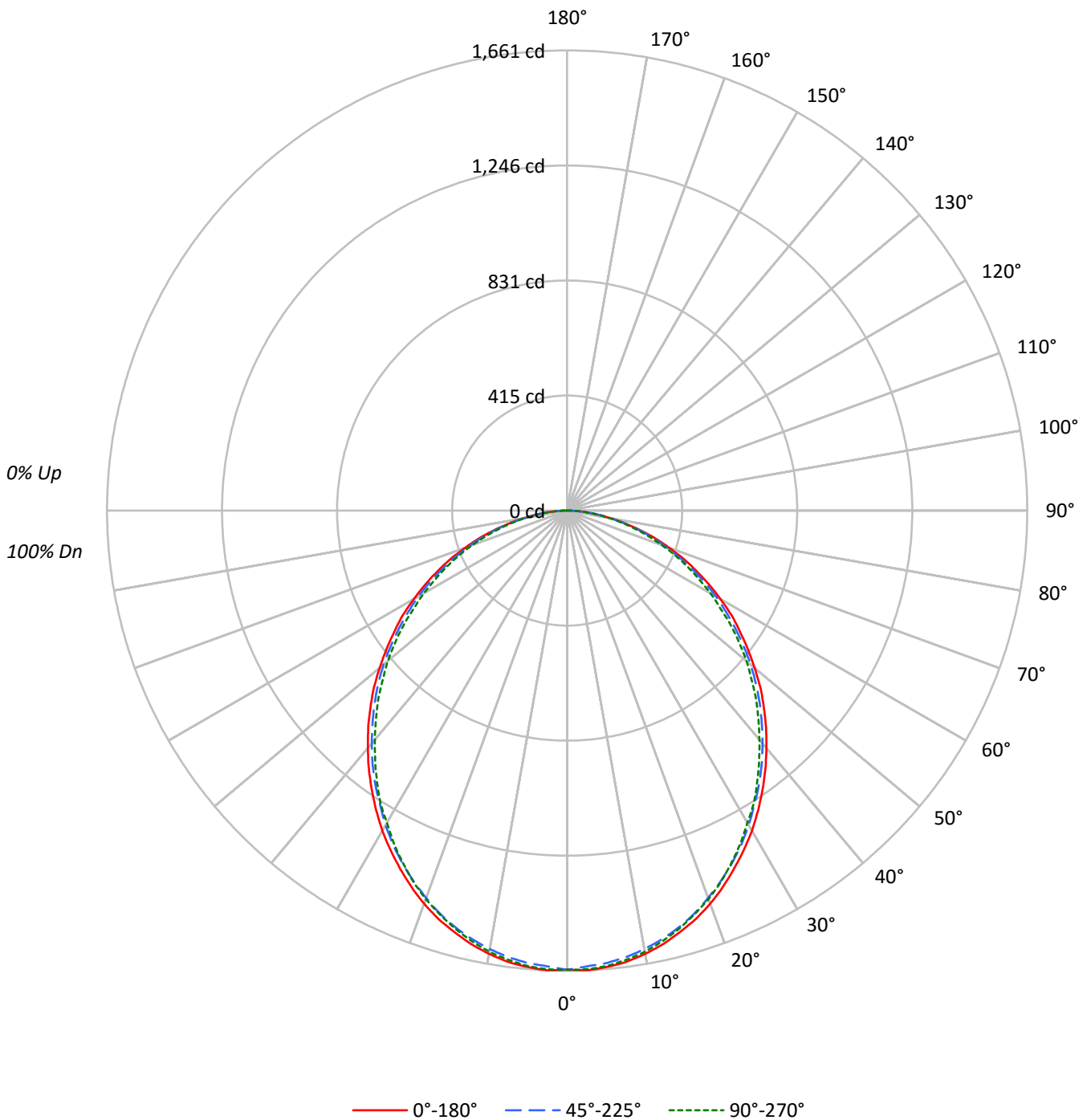
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	95	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	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	11780	11780	11780
5°	11798	11694	11773
10°	11724	11601	11672
15°	11587	11462	11497
20°	11422	11257	11285
25°	11185	11024	11004
30°	10947	10758	10678
35°	10667	10477	10381
40°	10379	10176	10018
45°	10096	9875	9692
50°	9761	9560	9344
55°	9432	9176	8935
60°	9075	8815	8505
65°	8651	8343	8057
70°	8111	7807	7556
75°	7480	7247	6912
80°	6520	6471	6320
85°	5651	5651	5358



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.3	3.7
10°-20°	441.2	10.3
20°-30°	650.4	15.2
30°-40°	757.5	17.7
40°-50°	759.0	17.7
50°-60°	663.6	15.5
60°-70°	492.4	11.5
70°-80°	279.3	6.5
80°-90°	78.3	1.8
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°	1248.0	29.2
0°-40°	2005.5	46.9
0°-60°	3428.1	80.1
0°-90°	4278.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4278.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1657	1657	1657	1657	1657	
5°	1654	1651	1639	1651	1650	157
15°	1575	1572	1558	1566	1562	444
25°	1426	1422	1406	1409	1403	657
35°	1229	1222	1208	1200	1196	769
45°	1004	1002	982	968	964	775
55°	761	760	740	725	721	682
65°	514	511	496	485	479	510
75°	272	268	264	259	252	289
85°	69	69	69	67	66	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1657.4	1657.4	1657.4	1657.4	1657.4
2.5°	1661.0	1658.6	1646.4	1658.6	1657.4
5°	1653.7	1651.3	1639.1	1651.3	1650.1
7.5°	1642.8	1639.1	1625.8	1637.9	1635.5
10°	1624.5	1622.1	1607.5	1617.3	1617.3
12.5°	1602.7	1599.0	1584.4	1592.9	1591.7
15°	1574.7	1572.3	1557.7	1566.2	1562.5
17.5°	1545.5	1539.4	1526.1	1533.4	1528.5
20°	1510.2	1505.4	1488.4	1494.4	1492.0
22.5°	1470.1	1464.0	1448.2	1451.9	1450.7
25°	1426.3	1421.5	1405.7	1409.3	1403.2
27.5°	1381.4	1375.3	1360.7	1360.7	1354.6
30°	1333.9	1327.8	1310.8	1310.8	1301.1
32.5°	1282.9	1278.0	1257.3	1256.1	1253.7
35°	1229.4	1222.1	1207.5	1200.2	1196.5
37.5°	1175.9	1169.8	1154.0	1144.2	1138.2
40°	1118.7	1115.1	1096.8	1088.3	1079.8
42.5°	1062.8	1059.1	1039.7	1025.1	1021.4
45°	1004.4	1002.0	982.5	967.9	964.3
47.5°	946.0	943.6	924.1	908.3	902.3
50°	882.8	882.8	864.6	848.8	845.1
52.5°	822.0	820.8	802.5	786.7	783.1
55°	761.2	760.0	740.5	724.7	721.1
57.5°	704.1	696.8	679.7	667.6	655.4
60°	638.4	634.7	620.1	604.3	598.3
62.5°	577.6	572.7	558.1	544.8	536.2
65°	514.4	510.7	496.1	485.2	479.1
67.5°	454.8	449.9	435.3	426.8	421.9
70°	390.3	386.7	375.7	364.8	363.6
72.5°	333.2	328.3	322.2	312.5	307.6
75°	272.4	267.5	263.9	259.0	251.7
77.5°	214.0	211.6	209.1	205.5	201.9
80°	159.3	159.3	158.1	155.6	154.4
82.5°	113.1	114.3	110.7	108.2	108.2
85°	69.3	69.3	69.3	66.9	65.7
87.5°	34.0	30.4	30.4	28.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)