

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: P243638

Luminaire Tested: **S125DR-H1090D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243638  
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-H1090D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4236.4 lumens  
Efficiency: N/A  
Efficacy: 134.5 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

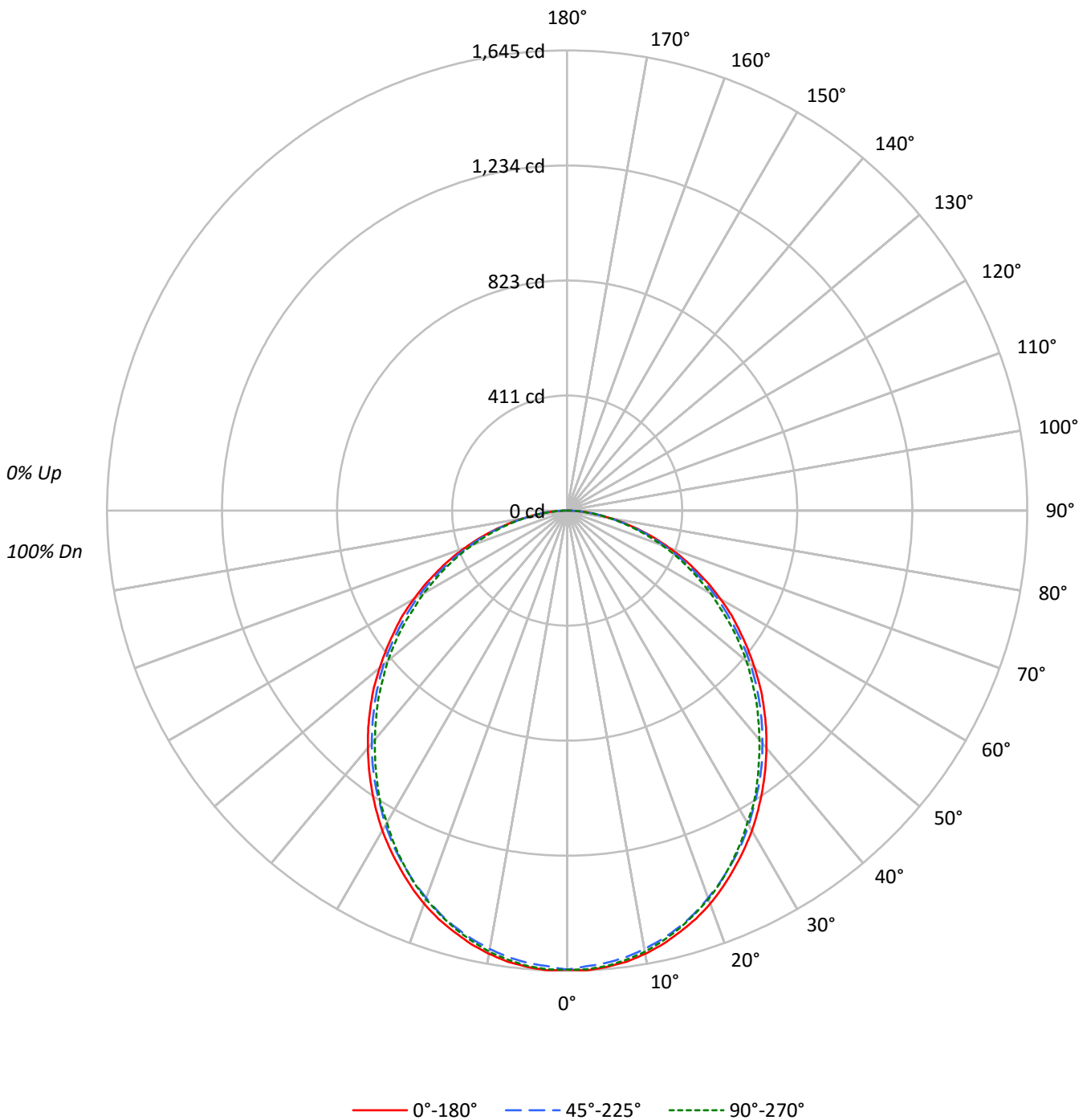
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	11665	11665	11665
5°	11683	11580	11658
10°	11610	11488	11558
15°	11473	11350	11385
20°	11311	11147	11174
25°	11076	10915	10897
30°	10840	10652	10574
35°	10562	10374	10280
40°	10278	10077	9920
45°	9997	9779	9598
50°	9666	9466	9254
55°	9341	9087	8847
60°	8987	8729	8421
65°	8565	8262	7978
70°	8032	7732	7481
75°	7406	7175	6843
80°	6455	6405	6258
85°	5594	5594	5301



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.8	3.7
10°-20°	436.9	10.3
20°-30°	644.1	15.2
30°-40°	750.1	17.7
40°-50°	751.6	17.7
50°-60°	657.1	15.5
60°-70°	487.6	11.5
70°-80°	276.6	6.5
80°-90°	77.5	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°	1235.8	29.2
0°-40°	1985.9	46.9
0°-60°	3394.6	80.1
0°-90°	4236.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4236.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1641	1641	1641	1641	1641	
5°	1638	1635	1623	1635	1634	155
15°	1559	1557	1542	1551	1547	440
25°	1412	1408	1392	1396	1390	651
35°	1217	1210	1196	1188	1185	762
45°	995	992	973	958	955	767
55°	754	753	733	718	714	675
65°	509	506	491	480	474	505
75°	270	265	261	256	249	286
85°	69	69	69	66	65	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1641.2	1641.2	1641.2	1641.2	1641.2
2.5°	1644.8	1642.4	1630.4	1642.4	1641.2
5°	1637.6	1635.2	1623.1	1635.2	1634.0
7.5°	1626.7	1623.1	1609.9	1621.9	1619.5
10°	1608.7	1606.3	1591.8	1601.5	1601.5
12.5°	1587.0	1583.4	1568.9	1577.4	1576.2
15°	1559.3	1556.9	1542.5	1550.9	1547.3
17.5°	1530.4	1524.4	1511.1	1518.4	1513.6
20°	1495.5	1490.7	1473.8	1479.8	1477.4
22.5°	1455.8	1449.7	1434.1	1437.7	1436.5
25°	1412.4	1407.6	1391.9	1395.6	1389.5
27.5°	1367.9	1361.8	1347.4	1347.4	1341.4
30°	1320.9	1314.9	1298.0	1298.0	1288.4
32.5°	1270.3	1265.5	1245.0	1243.8	1241.4
35°	1217.3	1210.1	1195.7	1188.4	1184.8
37.5°	1164.4	1158.3	1142.7	1133.1	1127.0
40°	1107.8	1104.2	1086.1	1077.7	1069.2
42.5°	1052.4	1048.8	1029.5	1015.1	1011.4
45°	994.6	992.2	972.9	958.5	954.9
47.5°	936.8	934.4	915.1	899.5	893.4
50°	874.2	874.2	856.1	840.5	836.9
52.5°	814.0	812.8	794.7	779.1	775.4
55°	753.8	752.6	733.3	717.6	714.0
57.5°	697.2	689.9	673.1	661.1	649.0
60°	632.2	628.5	614.1	598.4	592.4
62.5°	571.9	567.1	552.7	539.4	531.0
65°	509.3	505.7	491.3	480.4	474.4
67.5°	450.3	445.5	431.1	422.6	417.8
70°	386.5	382.9	372.1	361.2	360.0
72.5°	329.9	325.1	319.1	309.5	304.6
75°	269.7	264.9	261.3	256.5	249.2
77.5°	211.9	209.5	207.1	203.5	199.9
80°	157.7	157.7	156.5	154.1	152.9
82.5°	112.0	113.2	109.6	107.2	107.2
85°	68.6	68.6	68.6	66.2	65.0
87.5°	33.7	30.1	30.1	27.7	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)