

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: P243300

Luminaire Tested: **S123DR-H1165D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243300
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H1165D840-X4F0-XX-UDD-F-W
Description: DEFINE 3 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: 4558.2 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

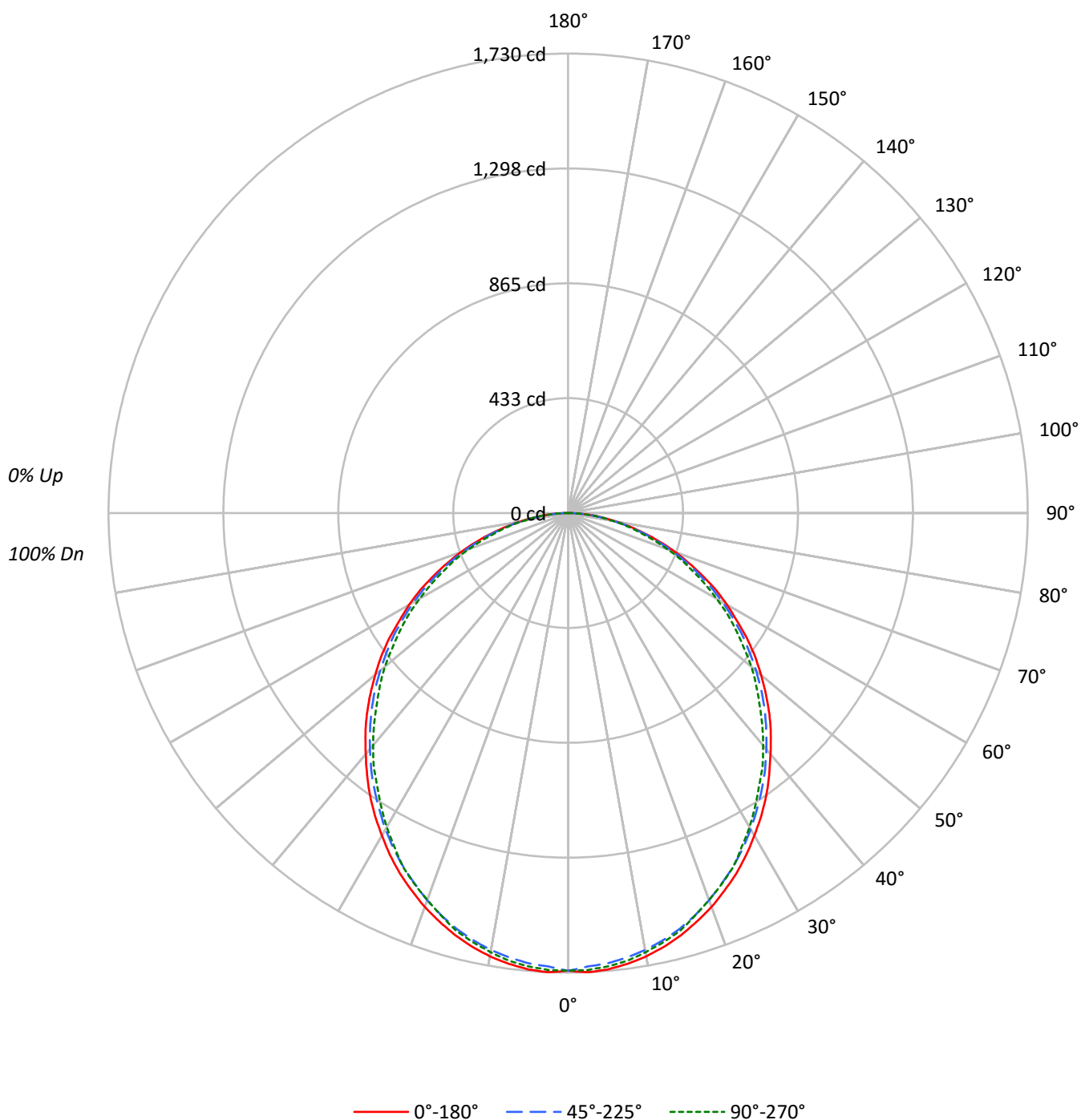
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51		
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27		
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20886	20886	20886
5°	20983	20707	20844
10°	20859	20561	20665
15°	20642	20339	20428
20°	20357	20009	19991
25°	20024	19644	19663
30°	19623	19245	19106
35°	19234	18812	18540
40°	18746	18363	18072
45°	18361	17922	17459
50°	17867	17411	16983
55°	17350	16900	16329
60°	16737	16289	15634
65°	16013	15522	14871
70°	15204	14701	14095
75°	14101	13703	12973
80°	12690	12397	11999
85°	11849	11265	10862

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.6	3.6
10°-20°	459.7	10.1
20°-30°	680.6	14.9
30°-40°	798.2	17.5
40°-50°	807.0	17.7
50°-60°	713.7	15.7
60°-70°	536.0	11.8
70°-80°	308.9	6.8
80°-90°	91.6	2.0
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°	1302.9	28.6
0°-40°	2101.1	46.1
0°-60°	3621.7	79.5
0°-90°	4558.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4558.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1724	1717	1702	1716	1713	164
15°	1645	1636	1621	1632	1628	464
25°	1497	1486	1469	1476	1470	689
35°	1300	1288	1271	1267	1253	812
45°	1071	1062	1046	1031	1018	825
55°	821	815	800	784	773	733
65°	558	554	541	527	518	553
75°	301	298	293	284	277	319
85°	85	84	81	80	78	95
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1723.1	1723.1	1723.1	1723.1	1723.1
2.5°	1730.2	1724.5	1708.9	1724.5	1721.6
5°	1724.5	1717.4	1701.8	1716.0	1713.1
7.5°	1711.7	1704.6	1687.5	1703.2	1700.3
10°	1694.7	1687.5	1670.5	1683.3	1679.0
12.5°	1671.9	1664.8	1647.8	1657.7	1654.9
15°	1644.9	1636.4	1620.8	1632.1	1627.9
17.5°	1612.3	1605.2	1588.1	1602.3	1589.5
20°	1578.2	1571.1	1551.2	1564.0	1549.8
22.5°	1538.4	1529.9	1510.0	1518.5	1511.4
25°	1497.2	1485.8	1468.8	1475.9	1470.2
27.5°	1451.7	1440.4	1423.3	1426.2	1416.2
30°	1402.0	1392.1	1375.0	1377.9	1365.1
32.5°	1352.3	1343.8	1322.5	1322.5	1309.7
35°	1299.8	1288.4	1271.3	1267.1	1252.9
37.5°	1242.9	1233.0	1217.4	1210.3	1201.7
40°	1184.7	1179.0	1160.5	1152.0	1142.1
42.5°	1129.3	1119.3	1103.7	1092.4	1081.0
45°	1071.1	1062.5	1045.5	1031.3	1018.5
47.5°	1010.0	1002.9	985.8	970.2	960.3
50°	947.5	941.8	923.3	906.3	900.6
52.5°	886.4	879.3	860.8	845.2	833.8
55°	821.0	815.4	799.7	784.1	772.7
57.5°	751.4	751.4	734.4	720.2	711.7
60°	690.4	683.3	671.9	656.3	644.9
62.5°	626.4	622.2	606.6	590.9	582.4
65°	558.3	554.0	541.2	527.0	518.5
67.5°	491.5	490.1	478.7	467.3	461.7
70°	429.0	426.1	414.8	403.4	397.7
72.5°	365.1	362.2	352.3	342.3	335.2
75°	301.1	298.3	292.6	284.1	277.0
77.5°	238.6	238.6	231.5	228.7	225.9
80°	181.8	180.4	177.6	174.7	171.9
82.5°	130.7	129.3	126.4	125.0	125.0
85°	85.2	83.8	81.0	79.5	78.1
87.5°	44.0	41.2	39.8	36.9	35.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)